District Operations Guide

KETS Exchange 2003 Environment

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Revision History

This revision history is updated each time this document is updated. The history identifies the version number, the date the version was completed, the author of the changes, and a brief description of the changes.

Version	Date	Updated By	Description of Change
1.0.1	11/18/05	Debbie Lowery	Pg 23, item E-add the words email address to: "The provisioning system will create the distribution group **email address** during its next execution."
1.0.1	11/18/05	Debbie Lowery	Section 3.3.2-Add sentence to end of Note section. "For more information refer to section 3.2.3, section D.
2.0	03/08/06	Lisa Brewer	- Moved Revision History to separate page - Updated Table of Contents - Updated the following sections: 1.2 3.1 3.2.1.1 3.2.2 3.2.3 3.2.4 3.2.6 3.3.1.d 3.3.2 3.3.3 3.3.4 - Added 3.3.6 3.4.2 3.4.5 3.4.7 3.4.9.g 3.4.10 4.1.1 4.1.2 5.1.2 5.1.3 5.2.1 6.1.2.2 6.1.3.1 7.3.1 8.1.5

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1 Introduction

Welcome to the KETS Exchange Server 2003 District Operations Guide. This guide is intended for the technical administrators of Kentucky school districts' Exchange 2003 systems. This guide describes the KETS Exchange 2003 environment and provides instructions for carrying out the routine operations required to administer your district's Exchange 2003 system.

1.1   If You Need Help

In general, e-mail client operations in the KETS Exchange 2003 environment work as described in vendor documentation and Help screens. However, many server operations have been customized for the KETS environment and must be carried out as described in this document or in consultation with OET. If you are not sure whether vendor documentation is correct for a particular task, please contact the KETS Help Desk.

If you need assistance with the tasks described in this document, please contact the KETS Help Desk unless the task description instructs you otherwise.

1.2   Document Feedback

If you have ideas for improving this document, such as adding additional information or clarifying existing content, please send them to your KETS Engineer so they can be considered for future versions.

1.3   Document Updates

This document will be updated and enhanced over time. Please check for new versions periodically at
http://www.education.ky.gov/KDE/Administrative+Resources/Technology/default.htm.

You can check the version number that appears in the footer to determine if the posted version is newer than what you already have.

2 OET and District Responsibilities

OET is responsible for most technical maintenance and support of systems in the KETS Exchange 2003 environment, but districts are responsible for many administrative and end-user support tasks.

2.1   OET Responsibilities

OET is responsible for:

- Disaster recovery
    - Backups
    - Rebuilds/Restores
- Exchange and related software monitoring, upgrades, and patches
- Exchange server hardware monitoring, upgrades, and patches
- Exchange server operating system monitoring, antivirus protection, upgrades, and patches
- Exchange server-related problem diagnosis and resolution
- Exchange e-mail virus protection
- Enterprise support
    - Configuration Management
    - Address Lists
    - Enterprise-wide Standards and Policies
    - User Provisioning

2.2   District Responsibilities

Districts are responsible for:

- Exchange server power and network connectivity
- Exchange server machine environment (secure, clean, temperature-controlled location)
- User administration
- Archival backups and (if desired) offsite disaster-recovery backups
- User data backups and recovery

3 Users and Mailboxes

In the KETS Exchange 2003 environment, users and mailbox configuration data are stored within Active Directory; therefore, user and mailbox management are carried out using Active Directory tools. While some procedures can be completed with the basic Active Directory Users & Computers program (ADUC), many can only be completed using a computer on which ADUC has been enhanced by installing the Exchange 2003 System Management Tools. Instructions for installing these tools can be found in section 5.2.1, "Install Exchange 2003 System Management Tools."

3.1   Provisioning

When a new user is created in Active Directory, or certain changes are made to an existing user in Active Directory, the provisioning system is responsible for creating or modifying the corresponding Exchange 2003 mailbox. An OET-maintained provisioning script executes every weekday (5 days a week) at 7 pm local time on each district's Exchange 2003 system to check for changes to Active Directory and make the appropriate corresponding changes in the Exchange 2003 system.

Note: All Active Directory changes must be made between 7 AM and 6 PM local time in order for the scheduled script to make the related Exchange 2003 changes by the following morning.

3.2   Active Directory and Exchange 2003 Background

3.2.1   Types of Objects

The following types of objects are used in the KETS Exchange 2003 environment. Note that while some of these objects are Microsoft-defined Active Directory object types, others are defined only within the KETS Exchange 2003 environment.

Exchange mailboxes are not AD objects.

3.2.1.1   User

In the KETS Exchange 2003 environment, user objects are used in two ways:

  a. Personal User – to represent an individual human user who will log in to the AD and Exchange systems.

  b. Resource User – to represent a service, schedulable resource, or shared mailbox; for instance, a database server, a conference room or a shared webmaster mailbox to which multiple human users need access.

Within this document the term "user" refers to the AD user object, including both personal and resource users; in those cases in which personal and resource users are handled differently the document will specify the type.

3.2.1.2   Contact

An Active Directory contact object has some descriptive attributes, including an e-mail address, but does not have a mailbox, cannot be assigned permissions, and does not have login credentials. In the KETS Exchange 2003 environment, contact objects are used to provide GAL and address list entries for persons/resources that have mailboxes outside the KETS Exchange 2003

environment; for instance, for staff of state agencies other than KDE. Contacts are similar to Exchange 5.5 custom recipients.

3.2.1.3   Group

There are several varieties of Active Directory group objects.

a. Distribution group – an object representing a group of mail-enabled objects but which cannot be assigned permissions; a message sent to the distribution group is automatically sent to all the members. The provisioning system will make all distribution groups into Universal groups regardless of the choice made when the group is created. Distribution groups are similar to Exchange 5.5 distribution lists.

b. Security group (not mail-enabled) – an object representing a group of objects; permissions granted to the group are automatically available to all the members of the group. Security groups which are not intended to be used as e-mail destinations must NOT be placed in any of the mail-enabled OUs (described below); they can be placed in the _**Groups** OU described below or in other OUs outside the mail-related OU hierarchy.

c. Security group (mail-enabled) – an object representing a group of mail-enabled objects which can both be assigned permissions and used as an e-mail destination. A security group is made mail-enabled by placing it in one of the mail-related OUs described below. The provisioning system will make all mail-enabled security groups into Universal groups regardless of the choice made when the group is created; if a security group's scope needs to be Domain Local or Global, you should not place it in any of the mail-related OUs and therefore it will *not* be mail-enabled.

3.2.1.4   Query-based Distribution Group

A query-based distribution group is an object representing a group of mail-enabled objects; a message sent to the distribution group is automatically sent to all the members. Unlike an ordinary distribution group or a mail-enabled security group, you do not manually adjust the membership of a query-based distribution group; instead, you define a query which chooses certain objects from Active Directory. The query is executed each time a message is sent to the query-based distribution group. Query-based distribution groups must be used with caution because they use significant Exchange and Active Directory resources.

3.2.2   Distribution Groups

Distribution groups are used to simplify sending e-mail to groups of mail-enabled objects.

NOTE: All Distribution Groups migrated from Exchange 5.5 Distribution Lists must be reviewed after migration. The Owner and Delivery Restrictions do not migrate along with the group. You must manually added these back to each distribution group.

3.2.2.1   KETS Exchange 2003 Notification Distribution Groups

The following distribution group is used to support the administration of your Exchange 2003 system. It is located within the **Users and Groups** sub-OU of the

_**District Admins** OU and should not be modified, though you may change its membership.

- **DIST EMail Antivirus Notification** – any AD user, distribution group, mail-enabled security group, or contact object which is added to this group will receive an e-mail alert when the GroupShield software on your Exchange 2003 system discovers a virus.

3.2.2.2   KDE-Required Distribution Groups

KDE requires districts to maintain certain distribution groups to support sending messages to teachers, principals, etc. statewide. OET creates and modifies KDE-required distribution groups but you are expected to keep the membership up to date. These distribution groups are located within the _**Exchange Resources** sub-OU of the **Leadership** OU. The groups are:

- All *District* Supt
- All *District* Prin
- All *District* EL Prin
- All *District* MS Prin
- All *District* HS Prin
- All *District* Teachers
- All *District* EL Teachers
- All *District* MS Teachers
- All *District* HS Teachers
- All *District* IT Teachers
- All *District* KVHS (and subsequent KVHS DGs per school where applicable)

where *District* refers to District Name, with either Co for County or Ind for Independent (with no ending period).

Examples:

- All Franklin Co Supt
- All Frankfort Ind EL Prin

3.2.2.3   District Distribution Groups

You may create distribution groups for internal district use; see the descriptions of OUs found below to determine the proper OU.

3.2.3   Security Groups

Security group membership is used to control user access and activity for both e-mail end users and administrators. The Exchange-related security groups, which are not mail-enabled, are located within the **Users and Groups** sub-OU of the _**District**

Admins OU and should not be modified, though you may change their membership. The security groups are:

a. **DIST Support Admins** – any AD user object which is in this security group can perform all the mail-related operations described in this document *except* directly modify e-mail addresses and add/modify contact objects; for those tasks the user must be a member of one of the All Mailbox Access security groups described below.

b. **DIST Staff User Admins** – any AD user object which is in this security group can perform all the mail-related operations described in this document within the **Staff** and **Leadership** OUs and their sub-OUs *except* directly modify e-mail addresses and add/modify contact objects; for those tasks the user must be a member of one of the All Mailbox Access security groups described below.

c. **DIST Student User Admins** – any AD user object which is in this security group can perform all the mail-related operations described in this document within the **Students** OU and its sub-OUs *except* directly modify e-mail addresses and add/modify contact objects; for those tasks the user must be a member of one of the All Mailbox Access security groups described below.

d. **DIST Staff District EMail Only** – any AD user object that is in the **Staff** or **Leadership** OU (or any of their sub-OUs) and which is added to this security group will only be able to send and receive e-mail within the district. The change will take effect immediately.

e. **DIST Students District EMail Only** – any AD user object that is in the **Students** OU (or any of its sub-OUs) and which is added to this security group will only be able to send and receive e-mail within the district. The change will take effect immediately.

f. **DIST Staff All Mailbox Access** – any AD user object which is added to this security group will be able to open any and all mailboxes that are related to AD user objects that are located in the **Staff** or **Leadership** OUs (or any of their sub-OUs); this can be used to inspect a particular mailbox or to export mailbox content. Members of this security group can also add contact objects and update e-mail addresses within the **Staff** and **Leadership** OUs (any any of their sub-OUs). The access provided by this group will take effect the next time the user logs in to the domain.

g. **DIST Students All Mailbox Access** – any AD user object which is added to this security group will be able to open any and all mailboxes that are related to AD user objects that are located in the **Students** OU (or any of its sub-OUs); this can be used to inspect a particular mailbox or to export mailbox content. Members of this security group can also add contact objects and update e-mail addresses within the **Students** OU (and any of its sub-OUs). The access provided by this group will take effect the next time the user logs in to the domain.

h. **DIST Public Folder Admins** – (optional) any AD user object which is added to this security group will have the ability to manage your district's public folders. In addition, this group will own all of your district's public folders. This security group will only be created for districts that are using public folders. The access provided by this group will take effect the next time the user logs in to the domain. *Note: This group should not be used to give end users access to individual folders; that type of access is granted using the permissions tab of the public folder (using the Outlook client).*

NOTE: For the following groups to function as designed, each should contain only user objects. Nested groups are not allowed. If you add users to a group and add that group to any of these groups they will not function correctly.

i. **DIST Staff Deleted Mailboxes** – any AD user object that is in the **Staff** or **Leadership** OU (or any of their sub-OUs) and which is added to this security group will not have a related mailbox created for it. If the AD user object currently has a related mailbox, the mailbox will be deleted by the provisioning system. The AD user object may still be used for other tasks, such as accessing file servers. To reverse this configuration and have the mailbox recreated, remove the user from the security group.

j. **DIST Staff Locked Mailboxes** – any AD user object that is in the **Staff** or **Leadership** OU (or any of their sub-OUs) and which is added to this security group will not be able to access its related mailbox after the provisioning system's next execution. The mailbox will not be removed from the system. Although the mailbox is inaccessible to the user, all mail destined for the mailbox will be delivered. The AD user object may still be used for other tasks, such as accessing file servers. *Important Note:* To reverse this configuration and give the user access to their mailbox, remove the user from the security group.

k. **DIST Students Deleted Mailboxes** – any AD user object that is in the **Students** OU (or any of its sub-OUs) and which is added to this security group will not have a related mailbox created for it. If the AD user object currently has a related mailbox, the mailbox will be deleted by the provisioning system. The AD user object may still be used for other tasks, such as accessing file servers. To reverse this configuration and have the mailbox recreated, remove the user from the security group.

l. **DIST Students Locked Mailboxes** – any AD user object that is in the **Students** OU (or any of its sub-OUs) and which is added to this security group will not be able to access its related mailbox after the provisioning system's next execution. The mailbox will not be removed from the system. Although the mailbox is inaccessible to the user, all mail destined for the mailbox will be delivered. The AD user object may still be used for other tasks, such as accessing file servers. *Important Note:* To reverse this configuration and give the user access to their mailbox, remove the user from the security group.

Two special Exchange-related security groups, **'Exchange Domain Servers'** and **'Exchange Enterprise Servers',** which are located within the **Users** OU should not be modified and must be preserved.

The 'Exchange Domain Servers' and 'Exchange Enterprise Servers' security groups must not be deleted or moved; such changes will render the district Exchange 2003 server inoperable. If the groups are deleted, then the district will have to work with KDE to restore the groups. Until restored, all messaging functions at the district will be unavailable.

Moving the aforementioned groups has the same effect. Although moving them back is a trivial procedure, Exchange 2003 will be inoperable until such move takes place.

3.2.4   Required Object Attributes

The required attributes of Active Directory user objects must have correct values. Use mixed case (John Doe, not JOHN DOE or john doe) for the first and last names of personal users.

    a.   Students

The following fields must be filled in correctly for students:

- First Name
- Last Name
- Department – must contain expected four-digit high school graduation year (like 2014).

All other fields that display in the Address Book must be blank in order to meet FERPA and Kentucky requirements for privacy of student information.

    b.   Staff

The following fields must be filled in correctly for staff (including Leadership):

- First Name
- Last Name

    c.   Resource

No specific fields are required for resource objects. Note that if the first name and last name fields are not filled in for a resource object, the SMTP prefix will be the same as the object's logon name.

NOTE: The special character "/" (forward slash) cannot be used in the following attributes: Name, First Name, Last Name and Alias. Additionally, the "/" cannot be used in the Leadership, Staff and Student sub-OU names

3.2.5   Optional Extension Attributes

Districts will be able to use five Active Directory extension attributes on mail-enabled objects of any kind (user, distribution group, mail-enabled security group, contact).

These fields do not appear in any global address list or other address list and are useful for information that should not be publicized. The use and format of these fields will not be standardized by KDE and is completely at your discretion. The attributes are:

- ExtensionAttribute1

- ExtensionAttribute2

- ExtensionAttribute3

- ExtensionAttribute4

- ExtensionAttribute5

These attributes can only be edited from a machine on which the Exchange 2003 System Management Tools are installed.

Extension attributes six through fifteen are reserved for KDE use. These attributes may eventually have standard meanings and formats.

3.2.6   Organizational Units

The following organizational units (OUs) are used to contain Active Directory objects that need e-mail functionality. OU membership affects address list visibility and mailbox size limits. Note that the address list visibility described below only applies to end users using standard MAPI clients and Outlook Web Access; for information about other clients see Section 8, "Address Lists."

NOTE: The special character "/" (forward slash) cannot be used in the Leadership, Staff and Student sub-OU names

   a.   **Leadership** – this OU is intended for leadership personal user objects, which should be used for staff members who need higher mailbox size limits. The total number of user objects allowed in this OU is either 10 or 2 times the district workstation allocation (DWA), whichever is higher. The mailboxes associated with AD user objects in this OU will have the leadership/staff e-mail address format, a size limit of 200 MB, and will appear to staff throughout the state and students within the district, but not to students outside the district (formerly Trust Level 15).

   b.   **_Exchange Resources** within **Leadership** – this OU is intended for
   - Leadership-related resource user objects (such as a webmaster mailbox). Resource user objects in this OU will have the leadership/staff e-mail address format, a size limit of 200 MB, and will appear to staff and students within the district, but not to anyone outside the district (formerly Trust Level 20).

   - Leadership-related distribution group, mail-enabled security group, and query-based distribution group objects. Such objects in this OU will have the leadership/staff e-mail address format and will appear to staff and students within the district, but not to anyone outside the district (formerly Trust Level 20).

- Leadership-related contact objects. AD contact objects in this OU will appear to staff and students within the district, but not to anyone outside the district (formerly Trust Level 20).

- KDE-required distribution group objects. KDE-required distribution group objects placed and maintained in this OU by OET will appear to staff throughout the state and students within the district, but not to students outside the district (formerly Trust Level 15). You should not modify KDE-required distribution group objects other than to add or remove members appropriately. See section 3.2.2.2, "KDE-Required Distribution Groups" for more information.

c. _**Groups** within **Leadership** - objects in this OU will not be provisioned for e-mail in any way. This OU can be used for security groups that should not be mail-enabled.

d. Other OUs within **Leadership** – any other OU that is a sub-OU of **Leadership** (but not a sub-OU of _**Exchange Resources** or _**Groups**) has the same behavior as the **Leadership** OU.

e. **Staff** – this OU is intended for staff (non-leadership) personal user objects. The mailboxes associated with AD user objects in this OU will have the leadership/staff e-mail address format, a size limit of 45 MB, and will appear to staff throughout the state and students within the district, but not to students outside the district (formerly Trust Level 15).

f. _**Exchange Resources** within **Staff** – this OU is intended for
- Staff-related resource user objects (such as a conference room). Resource user objects in this OU will have the leadership/staff e-mail address format, a size limit of 45 MB, and will appear to staff within the district, but not to students within the district or to anyone outside the district (formerly Trust Level 14).

- Staff-related distribution group, mail-enabled security group, and query-based distribution group objects. Such objects in this OU will have the leadership/staff e-mail address format and will appear to staff within the district, but not to students within the district or to anyone outside the district (formerly Trust Level 14).

- Staff-related contact objects. AD contact objects in this OU will appear to staff within the district, but not to students within the district or to anyone outside the district (formerly Trust Level 14).

g. **_Groups** within **Staff** - objects in this OU will not be provisioned for e-mail in any way. This OU can be used for security groups that should not be mail-enabled.

h. Other OUs within **Staff** – any other OU that is a sub-OU of **Staff** (but not a sub-OU of _**Exchange Resources** or _**Groups**) has the same behavior as the **Staff** OU.

i. **Students** – this OU is intended for student personal user objects. The mailboxes associated with AD user objects in this OU will have the student e-mail address format, a size limit of 5 MB, and will only appear to staff and students within the district (formerly Trust Level 20).

j. _**Exchange Resources** within **Students** – this OU is intended for
   - Student-related resource user objects (such as an STLP Lab). The mailboxes associated with AD user objects in this OU will have the student e-mail address format, a size limit of 5 MB, and will only appear to students within the district (formerly Trust Level 19).

   - Student-related distribution group, mail-enabled security group, and query-based distribution group objects. Such objects in this OU will have the student e-mail address format and will only appear to students within the district (formerly Trust Level 19).

   - Student-related contact objects. AD contact objects in this OU will only appear to students within the district (formerly Trust Level 19).

k. _**Groups** within **Students** – objects in this OU will not be provisioned for e-mail in any way. This OU can be used for security groups that should not be mail-enabled.

l. Other OUs within **Students** – any other OU that is a sub-OU of **Students** (but not a sub-OU of _**Exchange Resources** or _**Groups**) has the same behavior as the **Students** OU.

3.3   Basic Procedures

In general, you can carry out the following procedures using any AD user that is a member of **DIST Support Admins, DIST Staff User Admins** (for actions within **Staff/Leadership** OUs), or **DIST Student User Admins** (for actions within **Student** OUs); exceptions will be noted.

3.3.1   Create a User with a Mailbox

This procedure is used to create either a personal user or resource user; any differences are noted within the procedure.

Note: While this section does not describe the procedure, it is possible to create a new user by copying and modifying an existing user. However, in order to successfully do this you **must** *use an XP machine on which the Exchange 2003 System Management Tools have been installed (see section 5.2.1, "Install Exchange 2003 System Management Tools").*

    a. Determine the OU for the new user based on the OU descriptions above. You may want to use a sub-OU of one of the defined OUs.

    b. Open ADUC and navigate to the chosen OU.

    c. Right-click on the chosen OU and choose **New > User.**
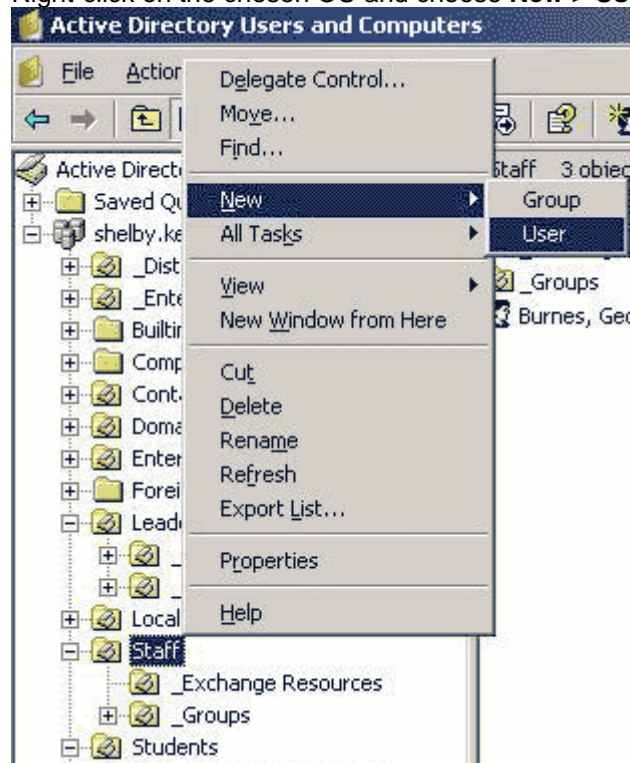
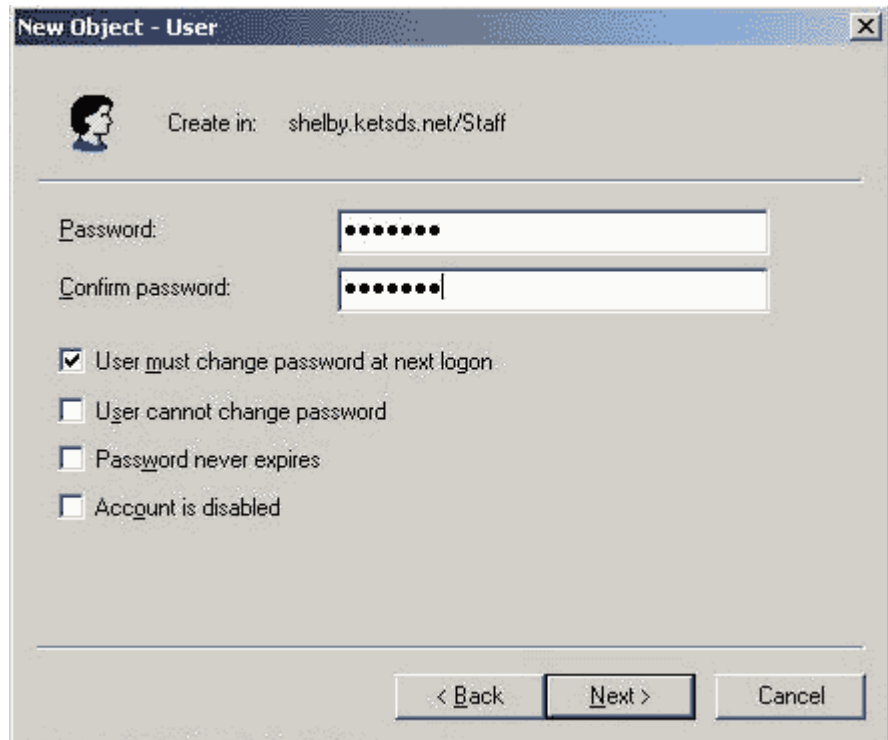d. Choose between the following depending on whether you are setting up a personal user or resource user.

▪   Personal: Fill in the **First name** and **Last name** fields. The **Full name** field will be filled in automatically; this will be the display name that appears in the global address list and address lists. *Note: While it is possible to manually edit the* **Full Name** *field, such changes are not recommended because the value entered here appears as both the Display Name* and *the user's name in ADUC. You may change these values after user creation is complete by following the instructions in section 3.4.3, "Change the Name of a Personal User".* Fill in the **User logon name**. Click **Next**.

▪   Resource: You may fill in the **First name** and **Last name** fields (in which case the **Full name** field will automatically be populated) or you may leave them blank and fill in only the **Full name** field. The **Full name** field will be the display name that appears in the global address list and address lists. If you do not fill in the **First name** and **Last name** fields, the **User logon name** will be used as the e-mail prefix (the part before the @ symbol in the SMTP address). Fill in the **User logon name.** Click **Next**.
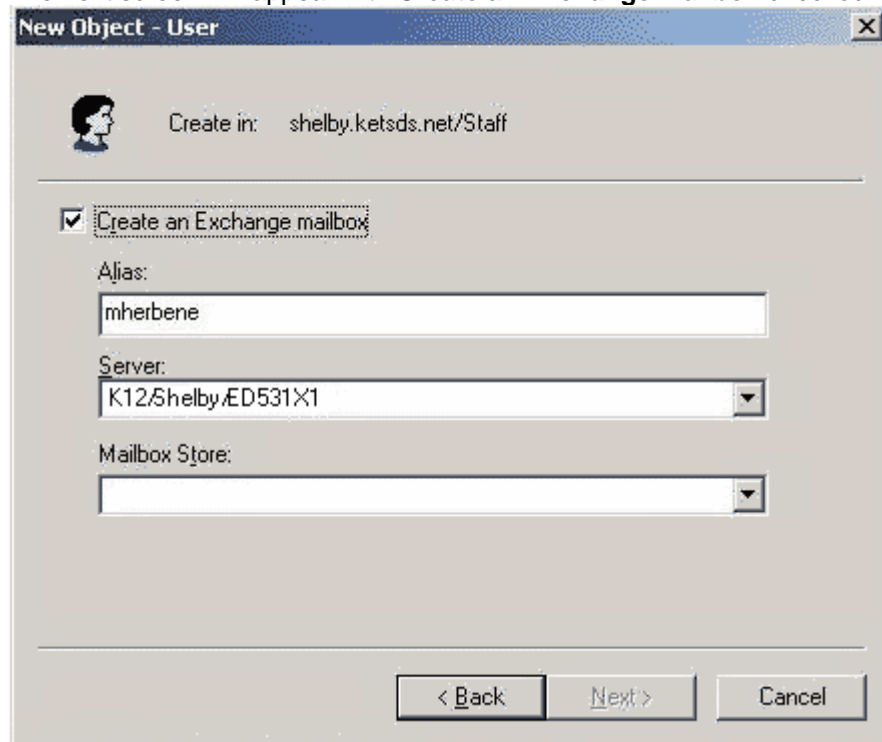
      e.   Choose between the following depending on whether you are setting up a personal user or resource user.

          ▪   Personal: Fill in the **Password** field with a temporary password and click the checkbox for **User must change password at next logon**. Click **Next**.

          ▪   Resource: Fill in the **Password** field with a strong (hard to figure out) password. Click **Next**.

f.   The next screen will appear with **Create an Exchange mailbox** checked.
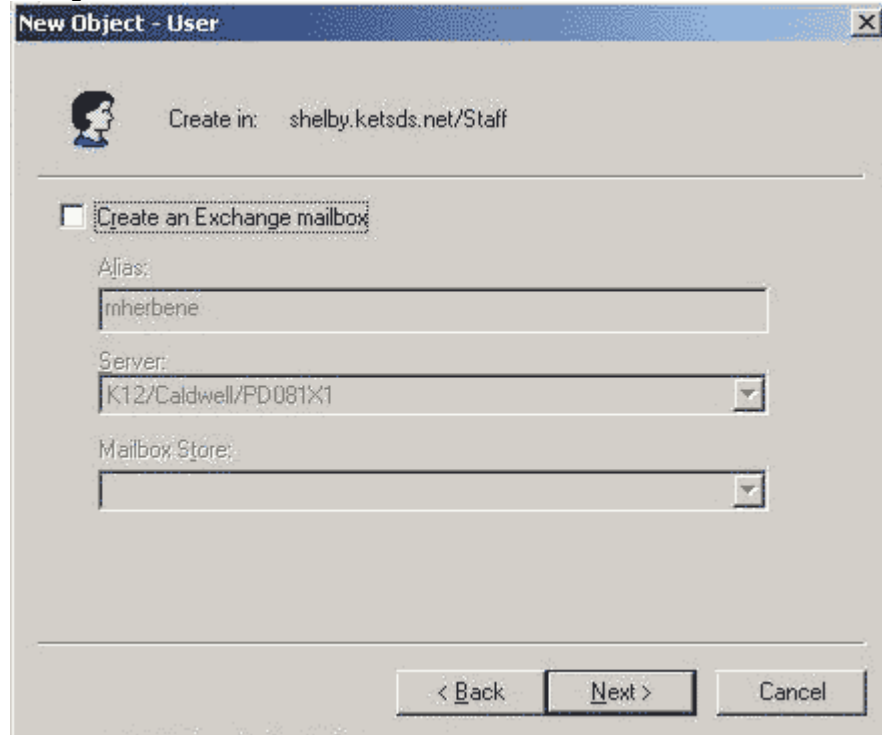
g. Click the checkbox for **Create an Exchange mailbox** to *uncheck* that
    option; it must be *unchecked* before you proceed and if you leave the
    option checked you will receive an error message.   Click **Next** and finish
    the user creation process. The provisioning system will create the mailbox
    during its next execution.

3.3.2   Create a Mailbox for an Existing User

If a personal or resource user object does not currently have a mailbox because of its
OU location, follow these steps to give it a mailbox. *Note: if the object has been placed
in the security group that prevents it from having a mailbox, this procedure will not
change that fact; you will have to adjust the user's group membership. For more
information refer to section 3.2.3, section D.* Determine the OU to which you will move
the object based on the OU descriptions in Section 3.2.6. You may want to use a sub-
OU of one of the defined OUs.

a. Open ADUC and navigate to the OU that currently contains the object.

b. Move the user object to the determined OU by either dragging-and-
    dropping the object to the OU or by right-clicking on the object, choosing
    Move, and finding the new OU in the dialog box. The provisioning system
    will create the mailbox during its next execution.

3.3.3   Modify Object Visibility or Size Limit

If a user, distribution group, mail-enabled security group, or contact object does not
have the correct visibility or (in the case of a personal user or resource user) mailbox

size limit, follow these steps to carry out the appropriate modification. Note that moving an object from one OU to another can affect the application of AD Group Policies; make sure the destination OU's policies are appropriate for the object. Mailbox content will be preserved.

    a.   Determine the OU to which you will move the object based on the OU descriptions in Section 3.2.6. You may want to use a sub-OU of one of the defined OUs.

    b.   If you are moving a personal or resource user object to an OU with a lower mailbox size limit, ensure that the size of any existing mail content is under the limit of the destination OU.

        Note: The mailbox will not move if its size is over the target OU mailbox size limit.
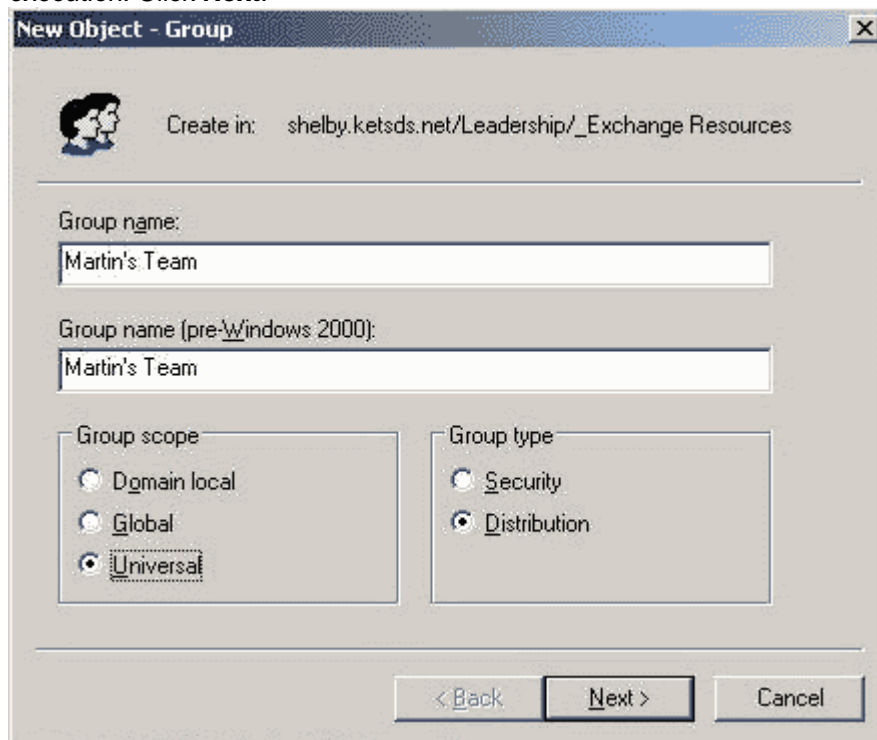
    c.   Open ADUC and navigate to the OU that currently contains the object.

    d.   Move the object to the destination OU by either dragging-and-dropping the object to the OU or by right-clicking on the object, choosing **Move**, and finding the new OU in the dialog box. The provisioning system will modify mailbox size and visibility during its next execution.

3.3.4　Create a Distribution Group

    a.   Determine the OU for the new distribution group based on the OU descriptions in Section 3.2.6. You may want to use a sub-OU of one of the defined OUs.

    b.   Open ADUC and navigate to the chosen OU. Right-click on the chosen OU and choose **New > Group**.
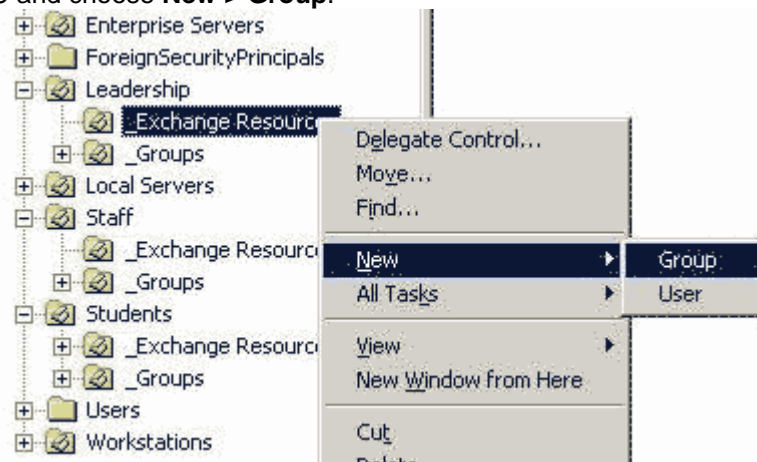
c. Fill in the **Group name** field; this value (with certain characters, such as spaces, removed) will become the prefix of the SMTP e-mail address. Choose **Universal** as the **Group Scope** and **Distribution** as the **Group Type**. *Note: Even if you do not choose **Universal** as the type at this point, the provisioning system will make the group scope Universal upon its next execution.* Click **Next**.
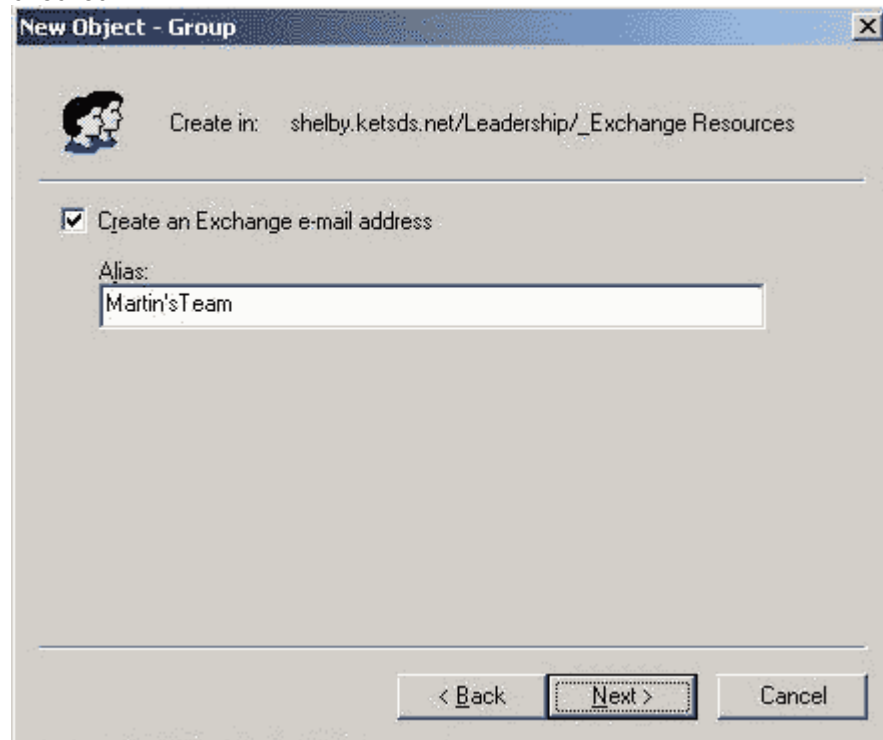
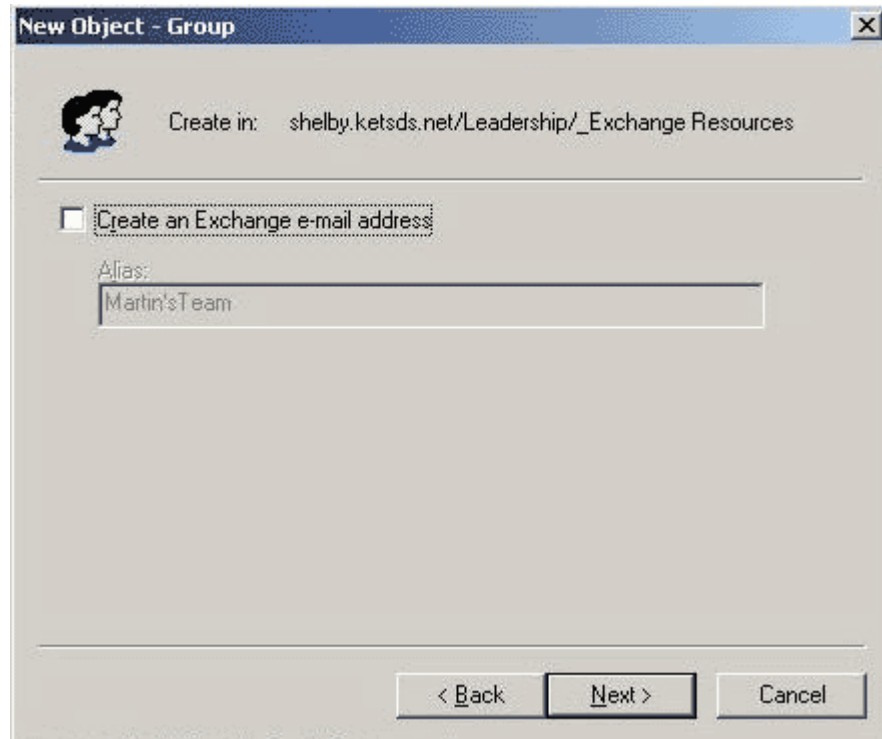d. The next screen will appear with **Create an Exchange e-mail address** checked.

    e.   Click the checkbox for **Create an Exchange e-mail address** to *uncheck* that option; it must be *unchecked* before you proceed. Click **Next**. The provisioning system will create the distribution group email address during its next execution.

f. If you leave the checkbox checked you will receive the error message below; you will have to click **OK** and uncheck the checkbox and proceed as described above.

3.3.5 Delete a Group

This procedure is used to delete district distribution groups and security groups. Note that the distribution groups described in section 3.2.2.2, "KDE-Required Distribution Groups" will be created, modified and removed as necessary by OET; you should not attempt to modify them.

         a. Open ADUC and navigate to the OU that currently contains the group.

         b. Right-click on the group and choose **Delete**.

3.3.6 Public Folder Permissions

A top level public folder will be created for each district that chooses to use public folders. The owner of each top level district public folder should be the **DIST Public Folder Admins** security group.

By default, your top level district public folder should have the following Client Permissions: **Default** setting should be **None** with the **Public Folder Visible** checkbox **unchecked**. This setting prevents your top level district public folder from being visible outside of your district.

NOTE: Do not modify the top level district public folder permissions. To give access to users to administer your public folders, you should modify the membership of the **DIST Public Folder Admins** security group..

3.4   Advanced Procedures

3.4.1   Edit Extension Attributes

This procedure is used to modify the optional, district-controlled extension attributes of mail-enabled objects. Note that you should only edit attributes 1 through 5.

   a.   Open ADUC and navigate to the OU that contains the object.

   b.   Double-click on the object to open the dialog box.

   c.   Click on the **Exchange Advanced** tab.

   d.   Click on the **Custom Attributes** button.

   e.   Click on the desired attribute and click **Edit**.

   f.   When your changes are completed, click on **OK** in each window to close the dialog boxes.

3.4.2   Add Access to Resource Mailboxes

This procedure is used to grant additional AD users access to an existing AD user's mailbox; typically this is used to grant one or more personal users the ability to open a resource user's mailbox. The new permission will be available the next time the additional user logs into the domain.

Note: These new permissions may take up to four hours to take affect.

   a.   Open ADUC and navigate to the OU that contains the object with the mailbox (typically, the resource user).

   b.   Double-click on the object to open the dialog box.

    c.   Click on the **Exchange Advanced** tab.

    d.   Click on the **Mailbox Rights** button.

    e.   Click on the **Add** button to open the dialog box; use the dialog to select the AD user object which should be able to open the mailbox.

    f.   Back in the **Permissions** dialog, click the checkboxes next to **Full mailbox access** and **Read permissions**. Click **OK** as needed to close the dialog boxes.

3.4.3   Change the Name of a Personal User

This procedure is used to change the name of a personal user, for instance upon marriage. It will affect the name visible in the GAL and address lists, the SMTP e-mail address, and the user name that appears in ADUC.

    a.   Open ADUC and navigate to the OU that contains the personal user.

    b.   Double-click on the object to open the dialog box.

    c.   Update the **First name**, **Last name,** and **Display name** fields as necessary.

    d.   Click **OK** to close the dialog box.

    e.   Right-click on the object and choose **Rename**. In the resulting dialog box, update the name as necessary. (This step updates the **Full Name** value that appears as the user name in ADUC; the value used here does not have to be identical to the value in the **Display Name** field).

The provisioning system will create a new e-mail address matching the updated name upon its next execution. *Note: in rare cases (for instance, if the user object was copied before the Exchange System Management tools were installed), the provisioning system may fail to create the new e-mail address during its overnight execution. In this situation please contact the KETS Help Desk for assistance.*

The old e-mail address will remain in the system until manually removed.

Note: there are additional Active Directory attributes that reflect the user's name; if you need assistance modifying these attributes please contact the KETS Help Desk.

3.4.4   Change the Name of a Resource User

This procedure is used to change the name of a resource user. It will affect both the name visible in the GAL and address lists and the SMTP e-mail address.

    a.   Open ADUC and navigate to the OU that contains the object.

    b.   Double-click on the object to open the dialog box.

    c.   Update the **First name**, **Last name,** and **Display name** fields as necessary.

    d.   Click on the **Exchange General** tab.

    e.   Update the **Alias** field as necessary.

    f.   Click **OK** to close the dialog box.

    g.   Right-click on the object and choose **Rename**. In the resulting dialog box, update the name as necessary. (This step updates the **Full Name** value).

The provisioning system will create a new e-mail address matching the updated name upon its next execution. The old e-mail address will remain in the system until manually removed.

3.4.5   Create a Secondary Address for a User, Distribution Group, or Mail-Enabled Security Group

This procedure is used to create secondary SMTP addresses for objects; mail sent to these addresses will go to the object to whom the address is attached. Be sure that the suffix for the address is correct; see section 7.3, "E-mail Addresses" for details of e-mail addresses composition. *Note: You can only carry out this procedure using an AD user that is in the* **DIST Staff All Mailbox Access** *security group (for objects in the* **Staff** *or* **Leadership** *OUs) or the* **DIST Students All Mailbox Access** *security group (for objects in the* **Students** *OU).*

    a.   Open ADUC and navigate to the OU that contains the object.

    b.   Double-click on the object to open the dialog box.

    c.   Click on the **E-mail Addresses** tab.

    d.   Click on the **New** button.

    e.   Choose **SMTP Address** and click **OK**.

    f.   Fill in the **E-mail Address** field with the complete SMTP address. Click **OK** and **OK** to close the dialog boxes.

3.4.6   Mass-create Mailboxes

You can mass-create user objects in Active Directory and the automatic provisioning system will create appropriate mailboxes based on OU membership. OET does not recommend or support any particular method for mass-creating objects in Active Directory, but there are various products and methods available to carry out this task.

3.4.7   Create a Sub-OU

You may create your own sub-OUs in order to organize objects; for instance, you can create sub-OUs of the **Students** OU for each of your schools and place students' user objects in these sub-OUs. Before creating sub-OUs please review the information in the *KETS Active Directory OU Naming Standards*, which can be found on the KDE website at:

> http://www.education.ky.gov/KDE/Administrative+Resources/Technology/KETS+Help+Desk/How+Tos+and+Standards+Documents/KETS+Active+Directory.htm

As described in Section 3.2.6, objects placed in sub-OUs will behave just like objects placed in their parent OUs. *Note: You can only carry out this procedure using an AD user that is in the **DIST Support Admins** security group.*
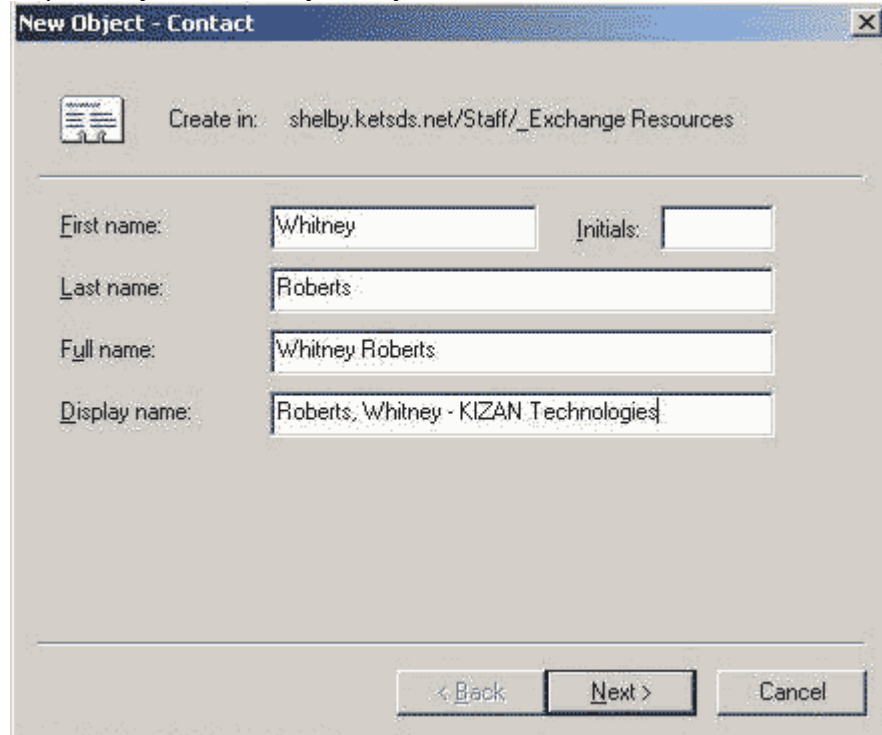
3.4.8   Create a Contact

This procedure is used to create contact objects, which are used when you need an e-mail address to be available in the GAL/address lists but mail content will be stored in another system. *Note: You can only carry out this procedure using an AD user that is in the **DIST Staff All Mailbox Access** security group (for objects in the **Staff** or **Leadership** OUs) or the **DIST Students All Mailbox Access** security group (for objects in the **Students** OU).*

  a. Determine the OU for the new contact based on the OU descriptions above. You may want to use a sub-OU of one of the defined OUs.

  b. Open ADUC and navigate to the chosen OU.

c.   Right-click on the chosen OU and choose **New > Contact**.
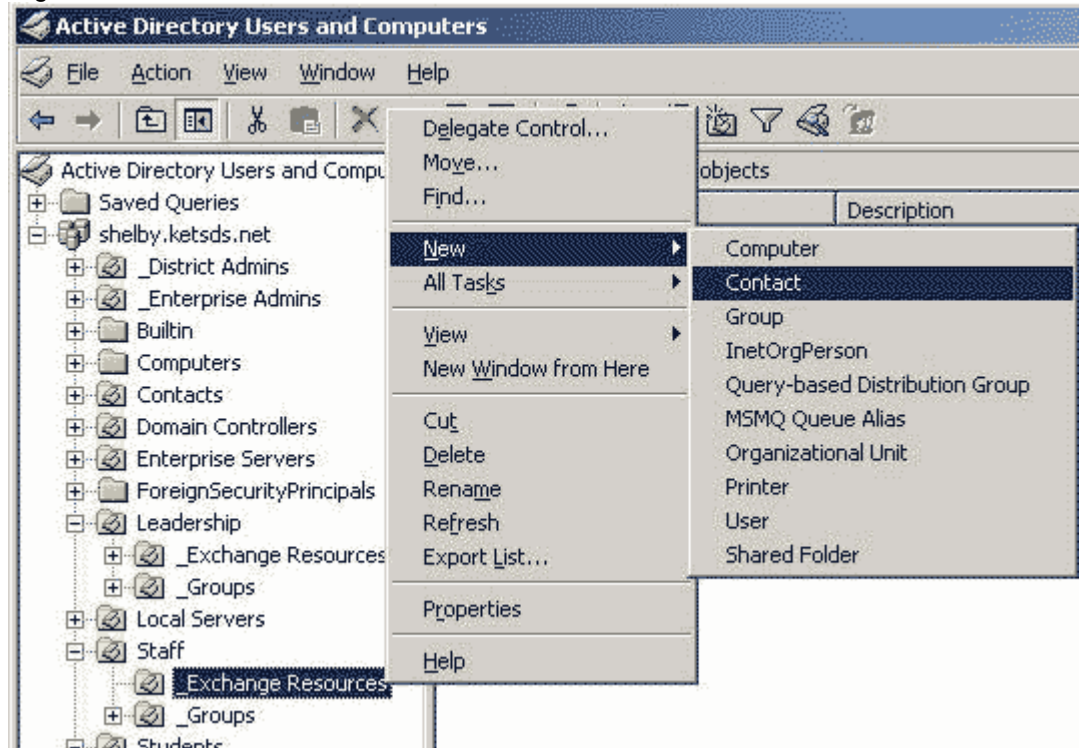
d. Fill in the **First Name** and **Last Name** fields. The **Full Name** field will be filled in automatically. If you don't fill in the **Display name** field, it will be populated with a copy of the **Full name** field after you finish the creation process; if you want the **Display name** to contain additional information to help identify the contact, you may fill it in now. Click **Next**.
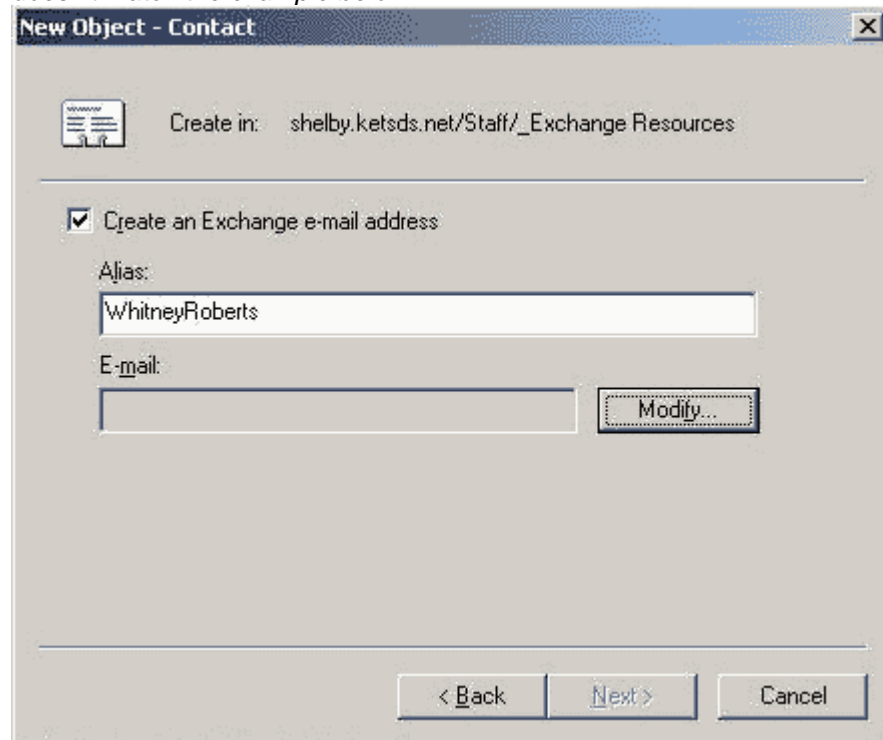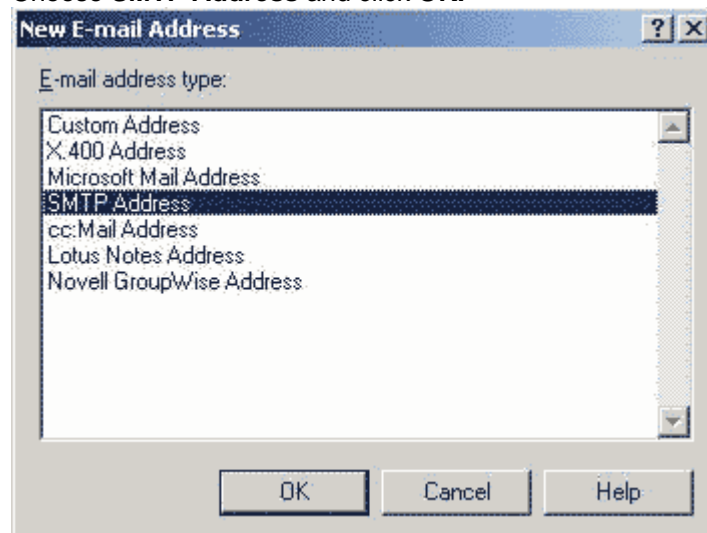
e. Click the **Modify** button. *Note: Do not change the checkbox, even if it doesn't match the example below.*

f. Choose **SMTP Address** and click **OK.**
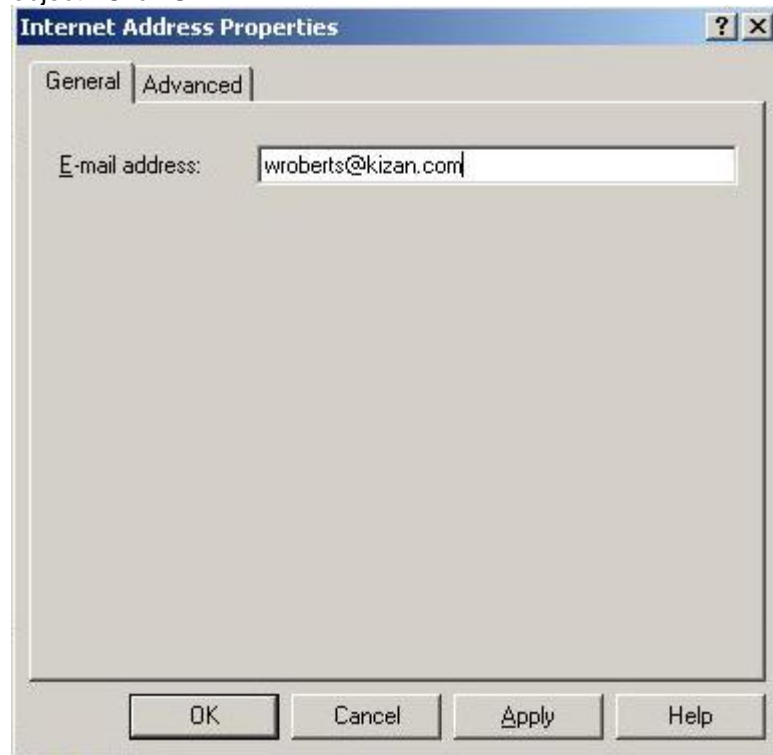
g. Fill in the **E-mail Address** field with the complete SMTP address for the object. Click **OK**.

h. Click **Next** and complete the creation process. The provisioning system will ensure that the contact appears in the correct GALs and address lists upon its next execution.

3.4.9   Check Mailbox Size

Use this procedure to determine the size of a user's mailbox. *Note: A user can check the size of their own mailbox using features in Outlook.*

This procedure requires the EXMERGE utility; see section 5.1.2, "EXMERGE", for more information about this utility.

*Note: You can only carry out this procedure using an AD user that is in the **DIST Staff All Mailbox Access** security group (for objects in the **Staff** or **Leadership** OUs) or the **DIST Students All Mailbox Access** security group (for objects in the **Students** OU).*

a. Start the EXMERGE utility.

b. Click **Next** on the Welcome screen.
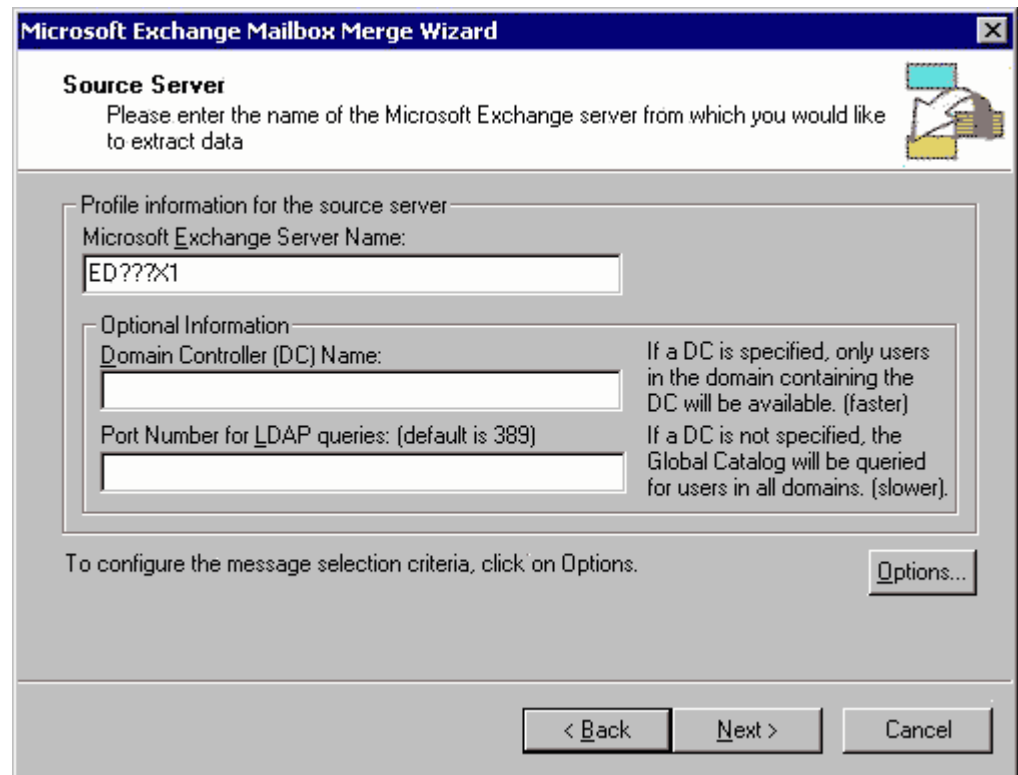
c. On the Procedure Selection screen click the **Extract or Import (Two Step Procedure)** radio button and click **Next**.
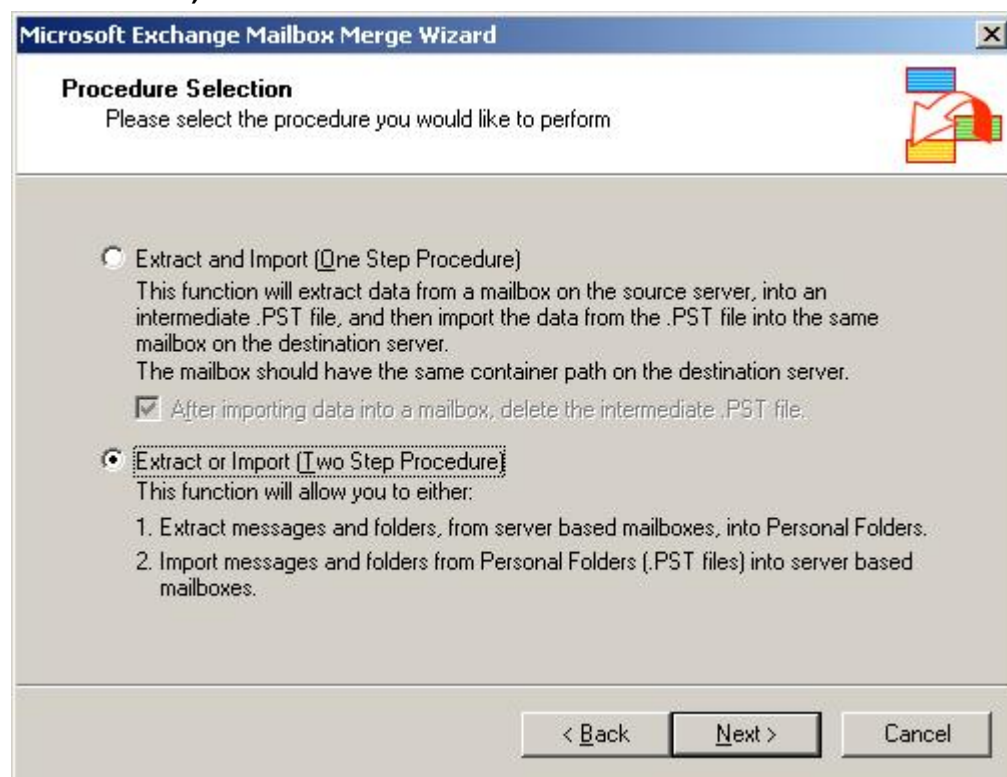
d. On the Two Step procedure screen click the **Step 1: Extract Data from an Exchange Server mailbox** radio button and click **Next.**
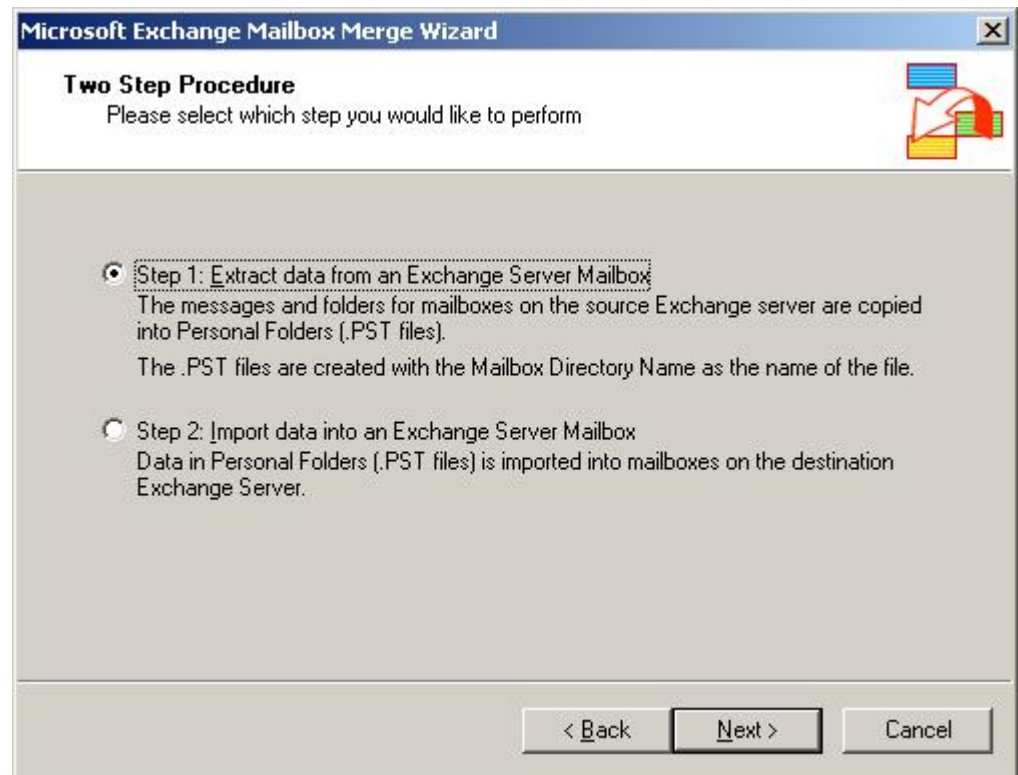
e.   Fill in **Microsoft Exchange Server Name** with the name of your Exchange
2003 mailbox server. Do not fill in the other fields. Click **Next**.

f.   Choose the appropriate database from the **Available Databases** list and click **Next**. A user's mailbox will be in the database whose name corresponds to the OU of the user. *Note: The first database listed (FIRST STORAGE GROUP/MAILBOX STORE) contains system objects, not user mailboxes; do not make any changes in this database.*
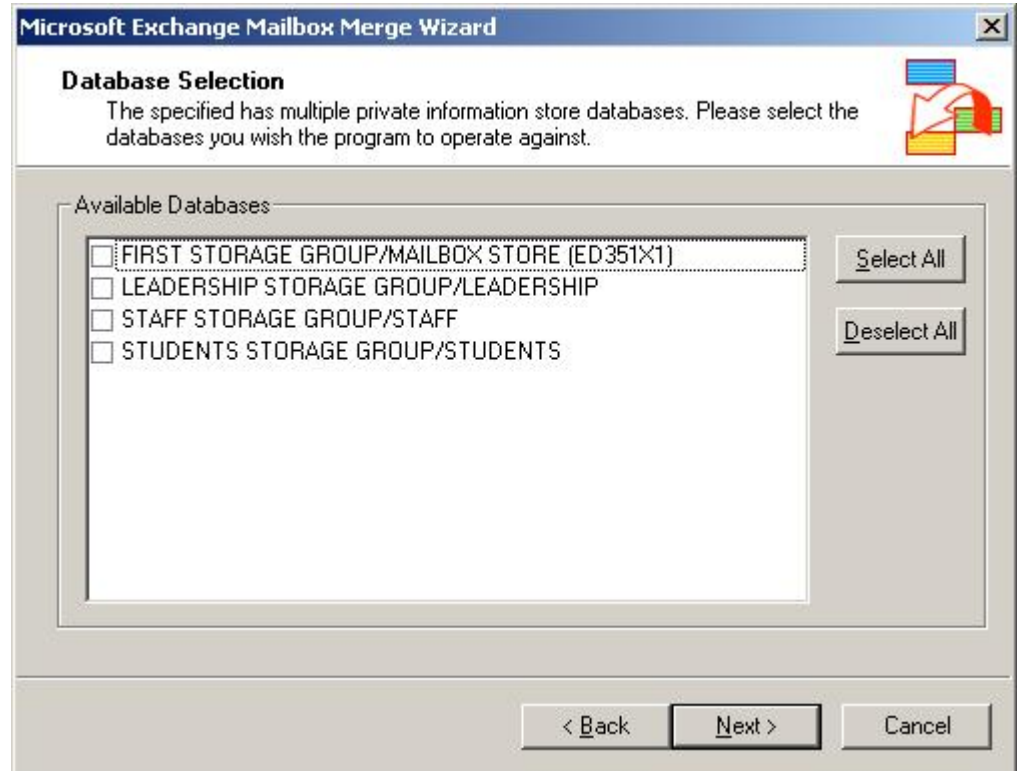
g. Note the size of the mailbox of interest. Click **Cancel** to exit out of the
    EXMERGE utility.
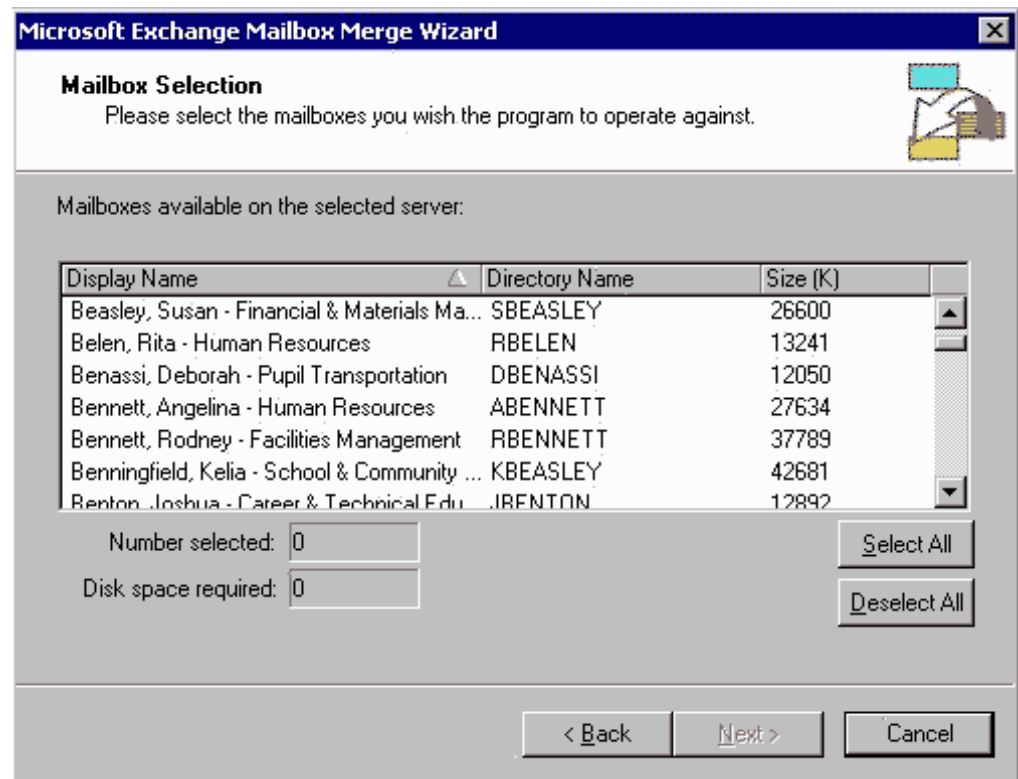
3.4.10 Grant Send As Permissions

Use this procedure to give a user the ability to send mail as another user; for instance,
to give a school secretary the ability to send messages on behalf of the principal.

In order to carry out this procedure, you must have Advanced Features activated in
ADUC; this can be set using the **View** menu.

Note: These new permissions may take up to four hours to take affect.

a. Open ADUC and navigate to the OU containing the user on whose behalf
    mail should be sent.

b. Double-click on the user object to open the dialog box.

c. Click on the **Security** tab.

d. Choose the user or group which should be able to Send As.

e. Choose **Send As**.

f. Click **OK** to close the dialog box. The user given the Send As permission
    will need to log out and back on to the domain before the new permissions
    take affect.

4 Backups for Disaster Recovery and Archiving

OET will maintain backups of your Exchange 2003 Server for basic disaster recovery purposes, but you are responsible for arranging for any additional backups you want for archival purposes or to protect against a site-wide disaster. You are also responsible for making backups for and carrying out any user data recovery.

4.1   Background

The following diagram illustrates the Exchange 2003 Disaster Recovery design.

Exchange 2003 Disaster Recovery Design

District Exchange 2003 Mailbox Server

R:\ExBackups

Filename	Date
servername.bkf	**7-20-05**

where *servername* is the name of the district Exchange 2003 Server

Backup of Exchange System occurs each weeknight starting at 11:30 PM local time. The most recent night's backup will exist on the Exchange Server.

Once the backup is successful, it is copied to a directory on the local Global Catalog server. Each time the backups are copied, they overwrite the backup from the previous week corresponding to that day. The Global Catalog server will contain the last 5 backups.

Note: The date stamped on the copied file will be the day following the backup date if the backup takes more than 30 minutes.

District Active Directory Global Catalog Server

R:\ExBackups

Monday

Filename	Date
servername.bkf	**7-18-05**

Tuesday

Filename	Date
servername.bkf	**7-19-05**

Wednesday

Filename	Date
servername.bkf	**7-20-05**

Thursday

Filename	Date
servername.bkf	**7-14-05**

Friday

Filename	Date
servername.bkf	**7-15-05**

The Email Disaster Recovery directory on the District Global Catalog Server will be accessible to members of the DIST Support Admins group to allow for archival/site disaster backups. Security group members will be able to copy any/all of the 5 days worth of backups to other media.

Note: Backups beyond the 5 days of Disaster Recovery backups are the district's responsibility.

Share = \\ED*distno*000G1\ExBackups
(Where *distno* is the 3-digit district number)

created 7.18.05
updated 8.11.05
Version 1.2

4.1.1 Disaster Recovery Backups

An Exchange backup will be performed each weekday evening starting at 11:30 PM local time. The backup file, which is named *servername*.bkf (where *servername* is the name of the Exchange 2003 server), will initially be placed on your Exchange 2003 server, but will then be copied to your Active Directory global catalog server (GC). The GC will contain a directory for each weekday, and the backup file will be copied into the corresponding directory, overwriting the file from the previous week.

Due to infrastructure limitations, the KETS Exchange 2003 environment does not provide for any off-site backups of your Exchange 2003 data, so a disaster that destroys both the Exchange 2003 server and the GC will result in total loss of e-mail data. At district discretion, you can arrange for offsite disaster recovery backups using the methods described below for archival backups.

4.1.2 Archival Backups

Archival backups can be important for legal purposes as well as recovery from large-scale disasters. Keep in mind the disaster recovery backup files from the AD global catalog server will only cover five days.

If you want additional backups of your Exchange 2003 system for archival purposes, you may make copies of the backup files using the share on the GC that contains the disaster recovery backups. The share is named *gcservername*\ExBackups and all members of the **DIST Support Admins** security group have read access to the share and its contents.

4.1.3 User Data Recovery

User data recovery means restoring e-mail content for a user or group of users without restoring the entire system to a previous state; for example, restoring a particular message that was accidentally deleted. Exchange 2003 has two features, Deleted Item Retention and Deleted Mailbox Retention, which can be used for user data recovery in some cases; in other situations recovery is only possible from EXMERGE backups, which are a district responsibility.

4.1.3.1 Deleted Item Retention

Individual mail messages/items that end users delete are actually retained within the Exchange 2003 database and may be recovered up to 14 days after the deletion. This recovery can be performed by end users with the Outlook client software.

4.1.3.2 Deleted Mailbox Retention

Mailboxes that you delete (by adjusting OU membership) are actually retained within the Exchange 2003 database and may be recovered up to 30 days after the deletion. This recovery must be performed by OET.

4.1.3.3 EXMERGE Backups

If you want the ability to use EXMERGE backups to recover user data, you must create and safely store EXMERGE backups. You may want to schedule periodic EXMERGE executions to store all or part of user e-mail content. More information about create and restoring from EXMERGE backups may be found in the video referenced in section 5.1.2, "EXMERGE." EXMERGE backups are a district responsibility.

4.2   Procedures

4.2.1   Initiate Disaster Recovery

If OET detects that your Exchange 2003 system is not operating correctly and requires disaster recovery, OET staff will contact you to coordinate work. If you believe that your Exchange 2003 system needs disaster recovery, please contact the KETS Help Desk to initiate the process.

4.2.2   Recover a Deleted Mailbox

To arrange for recovery of a deleted mailbox, contact the KETS Help Desk. Mailboxes can only be recovered within 30 days of deletion.

4.2.3   Recover a Deleted Item

To recover a deleted item, use the Outlook 2003 "Recover Deleted Items" feature. For more information, search in Outlook 2003 Help for "Retrieve a deleted item". Items can only be recovered within 14 days of deletion.

4.2.4   Recover Content Using EXMERGE Backups

To recover content using EXMERGE backups, review the video referenced in section 5.1.2, "EXMERGE." You must have had EXMERGE backups in place before the item was deleted, and have those backup files available, in order to recover content using EXMERGE.

5 Administrative Tools

5.1   Background

5.1.1   Exchange System Manager

Exchange System Manager, the standard utility Microsoft provides for managing Exchange 2003, is only used by OET staff in the KETS Exchange 2003 environment. If your Exchange 2003 system needs to be changed using Exchange System Manager, please contact your KETS Engineer for assistance.

5.1.2   EXMERGE

EXMERGE, the Exchange Mailbox Merge utility provided by Microsoft, has a variety of uses in the KETS Exchange 2003 environment. A version of the utility that works against all versions of Exchange can be downloaded from:

ftp://ketsftp.k12.ky.us/Messaging/E2K3/Exmerge/exmergeallv.exe

You should install this utility on the same management workstation on which the Exchange 2003 System Management Tools have been installed. If you need assistance downloading or installing the utility, please contact the KETS Help Desk.

You may download a video illustrating various uses of EXMERGE from:

ftp://ketsftp.k12.ky.us/Messaging/Exchange 2003 Project/exmergevideo.zip

This video was made using Exchange 5.5, but the instructions and examples work in the KETS Exchange 2003 environment. One screen (Database Selection) is new in Exchange 2003. On this screen you choose to work with Student, Staff or Leadership mailboxes by choosing the database with the corresponding name. ***Note****: The first database listed (FIRST STORAGE GROUP/MAILBOX STORE) contains system objects, not user mailboxes; do not make any changes in this database.*

NOTE: If you need to recover large amounts of data (multiple users mailboxes), please contact the KETS Help Desk prior to running EXMERGE. They will notifiy OET to turn on circular logging to prevent filling up the log disks. Once you have completed the import using EXMERGE, contact the KETS Help Desk so they can notify OET to turn off circular logging.

5.1.3   Active Directory Users and Computers

You will carry out most of your Exchange 2003 administrative tasks using the Active Directory Users and Computers utility (ADUC) on a machine with the Exchange 2003 System Management Tools installed (see Section 5.2.1 for step-by-step installation instructions). This section contains brief descriptions of the Exchange-specific screens and dialogs in ADUC. You can reach these screens by finding the desired object in ADUC and double-clicking on it.

5.1.3.1   E-mail Addresses Tab

This screen is used to view, edit, add and delete SMTP e-mail addresses for mail-enabled objects. *Note: do not change the checkbox at the bottom; depending on the circumstances it may be checked or unchecked, but this is managed by the provisioning script and should not be manually adjusted.*

5.1.3.2 Exchange Advanced Tab

This screen is used to hide objects from all GALs and address lists (but not from IMAP clients like Entourage), and to access other screens.

5.1.3.3 Exchange Advanced – Custom Attributes
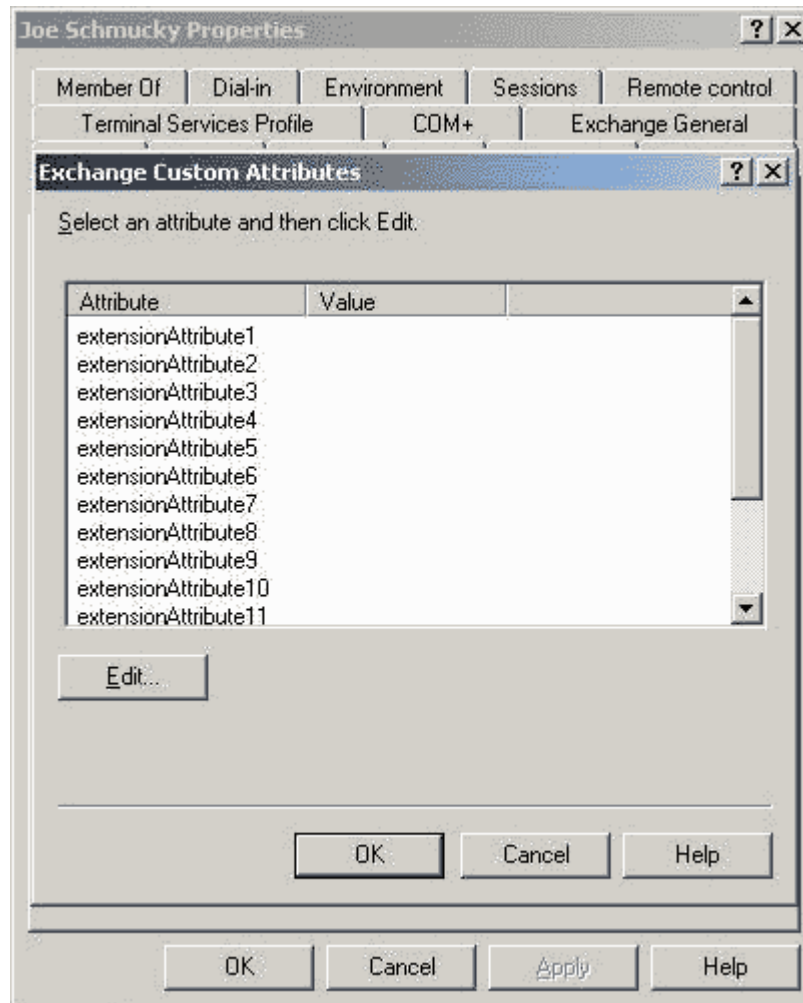
This screen is used to modify custom attributes of mail-enabled objects. *Note: Do not use attributes 6-15 as they are reserved for KDE use.*

5.1.3.4   Exchange Advanced – Mailbox Rights
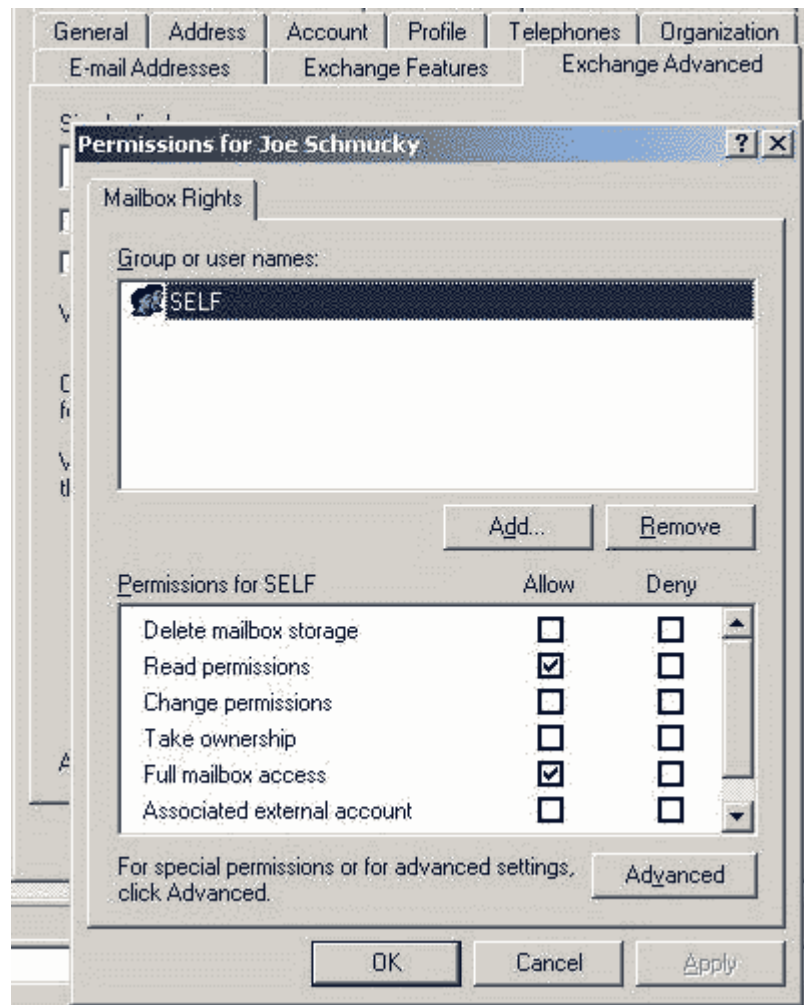
This screen is used to give additional users access to a mailbox, typically for resource users. If you are granting permissions to an additional user, you should grant both **Read permissions** and **Full mailbox access**. *Note: Do not change the permissions for **SELF**;if you wish to prevent a user from accessing their own mailbox, use the security group membership described in section 3.2.3, "Security Groups."*

5.1.3.5   Exchange General Tab

This screen can be used to change the **alias** of a user and access other screens. If both **First name** and **Last name** are blank, the alias is used as the e-mail address prefix.

5.1.3.6   Exchange General – Delivery Restrictions

This screen is used to override the Enterprise Message Size limit for an individual user. The impacts of such as change are complex, so if you wish to make this change please contact the KETS Help Desk. This screen also allows you to control the users from whom this user can receive e-mail.

5.1.3.7   Exchange General – Delivery Options

This screen is used to:

Allow a second user to send e-mail on behalf of the chosen user

Create forwarding addresses (which were called Alternate Recipients in Exchange 5.5). *Note: unless you click in the checkbox next to* **Deliver messages to both forwarding address and mailbox,** ONLY *the forwarding address will receive the message.*

Override the Enterprise Recipient Count limit.

5.1.3.8 Exchange Features Tab
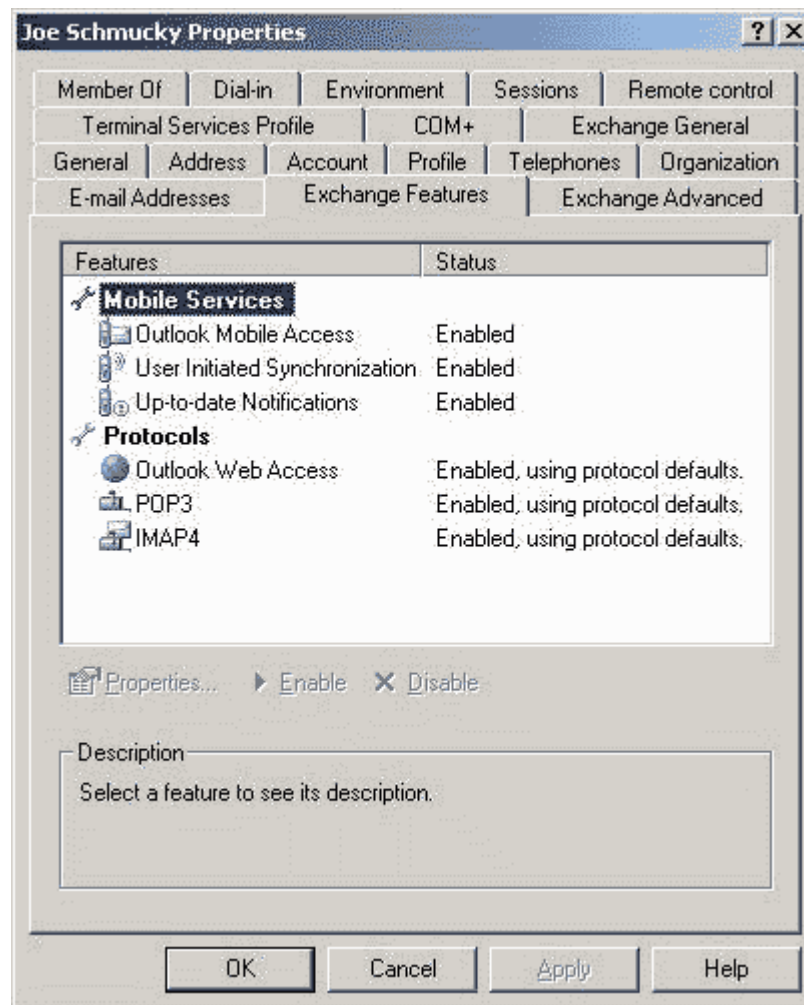
This screen is used to prevent a user from accessing your Exchange 2003 system over a particular protocol. If you want to completely prevent a user from accessing your Exchange 2003 system, please use the security group as described in section 3.2.3, "Security Groups."

5.2 Procedures

5.2.1 Install Exchange 2003 System Management Tools

You can install the Exchange 2003 System Management Tools on any Windows XP machine in your domain. The installation files are loaded on the Exchange 2003 server and can be accessed over the network. The logon account you use to install the tools will need administrative access to the machine on which you are installing them.

The Exchange 2003 installer will only work on a machine if the Internet Information Services Snap-In is already installed on the system. IIS does not need to be running

to install or use the tools. *If* your machine does *not* have the IIS Snap-in (which would normally be installed along with IIS or can be installed by itself) installed, use the following steps to install it. *Note: You will need access to the Windows XP media in order to complete this procedure.*

    a.   Click on **Start > Settings > Control Panel.**

    b.   Double-click on **Add/Remove Programs.**

    c.   Click on **Add/Remove Windows Components** in the left-hand pane.

    d.   Select (do not click the checkbox) Internet Information Server and click on **Details**, which opens a new window.

    e.   Click the checkbox for Internet Information Services Snap-In and click **OK** to close the window.

    f.   Click **Next** and follow the prompts to install the IIS Snap-In.

Once the IIS Snap-In is installed, use the following steps to install the Exchange 2003 System Management Tools.

    g.   Click on **Start > Run**.

    h.   Type *servername*\E2K3Source\SETUP\I386\setup.exe (where *servername* is name of your Exchange 2003 server) and click **OK**.

    i.   When the Installation Wizard opens, click **Next**.

    j.   Select 'I agree' and click **Next**.

    k.   On the Component Selection window, verify that the **Action** for component "Microsoft Exchange" is "Custom" and that the **Action** for component "Microsoft Exchange System Management Tools" is "Install" and click **Next**. If asked to replace a newer file, select No to all.

    l.   When prompted for the install path, accept the default and click **Next**. The install will begin and will take some time. If an error message pops up about Instant Messenger Admin Service, click **Cancel**. Setup will proceed. Click **Finish** when setup is complete.

The following steps are necessary to install Exchange Service Pack 2.

    m.   Click on **Start > Run**.

    n.   Type *servername*\e2k3sp2\setup\i386\update.exe (where *servername* is the name of your Exchange 2003 server) and click **OK**.

    o.   Accept default choices and click **Next** as necessary to complete the Service Pack installation.

You will now see the Exchange tabs on objects in Active Directory Users and Computers.

5.2.2   Modify Columns Displayed in Active Directory Users & Computers

The default set of columns appearing in Active Directory Users & Computers (ADUC) may not include all the information useful in managing Exchange 2003. This procedure is used to modify the default column set.

     a.   Open ADUC.

     b.   Click on **View > Add/Remove Columns…**
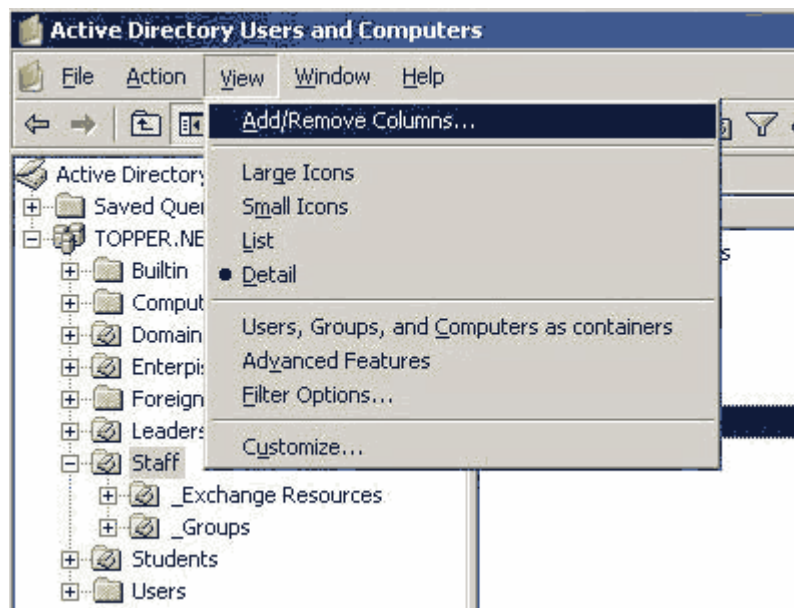
c. Choose the columns desired by clicking on entries in the **Available Columns** list and clicking **Add**.
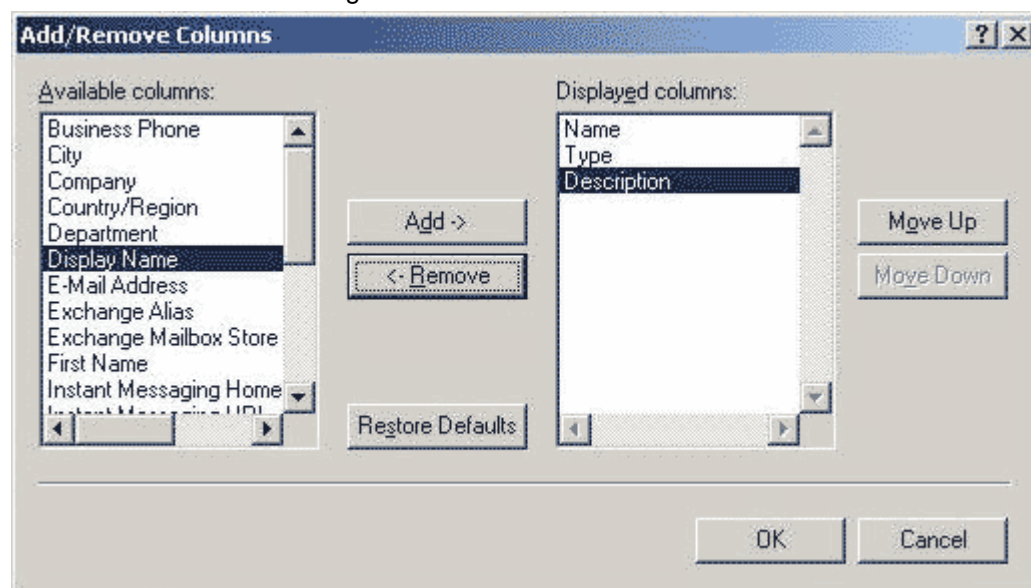
d. When all the desired columns appear in the **Displayed Columns** list, click **OK**.
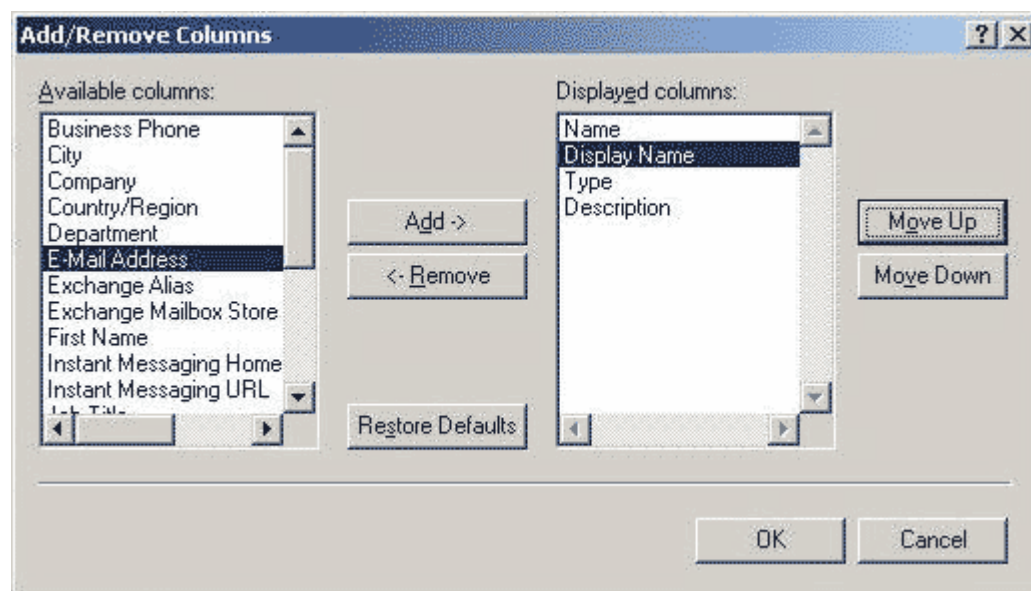
e. The desired columns should now appear.

6 Client Software & Devices

6.1   Background

6.1.1   Desktop Clients

6.1.1.1   Support

OET aligns its client software support for the KETS Exchange 2003 environment with Microsoft's support. Accordingly, at this time the supported desktop clients are:

- Outlook 2000 SP2 (Windows/Intel)
- Outlook XP (Windows/Intel)
- Outlook 2003 (Windows/Intel)
- Outlook 2001 (Mac)
- Entourage 2004 (Mac)

KETS will support these e-mail clients on the same operating system platforms on which Microsoft supports them.

In addition to these supported clients, the Internet Message Access Protocol (IMAP) may be used to access district Exchange 2003 systems from anywhere inside the KETS network or via KETS Virtual Private Network (VPN), permitting use of other e-mail clients; however, support for these clients is the responsibility of districts.

6.1.1.2   Outlook 2003 Cache Mode

Outlook 2003 has a feature called cache mode, in which the Outlook software keeps a local copy of an end user's mail data. Cache mode can be useful in some situations, but note that global address list/address list functionality is somewhat different and that sent messages actually traverse the network between the client and your Exchange 2003 system twice, once for the message to be sent and again for the message to be placed in the local mail file; this characteristic will increase overall network utilization.

6.1.2   Outlook Web Access

6.1.2.1   Access to Outlook Web Access

The URL for Outlook Web Access (OWA) is:

https://ketsmail.us/

This URL is correct for all end users and all network locations (within a district, from home, via VPN, etc.). All communication between the browser and OWA is encrypted using SSL (Secure Sockets Layer). You must ensure that browsers are not using your local http proxy server when accessing OWA. The method for configuring this proxy exception varies by browser; depending on your overall workstation management strategy, you may be able to use Active Directory Group Policies to make this adjustment for Internet Explorer on Windows 2000 and later.

All users will authenticate to OWA using their AD network login credentials, including the domain, in the format *domain\Network logon*; for example, KETS\dcouch.

6.1.2.2   Outlook Web Access Login Screen

The OWA login screen will appear as follows:
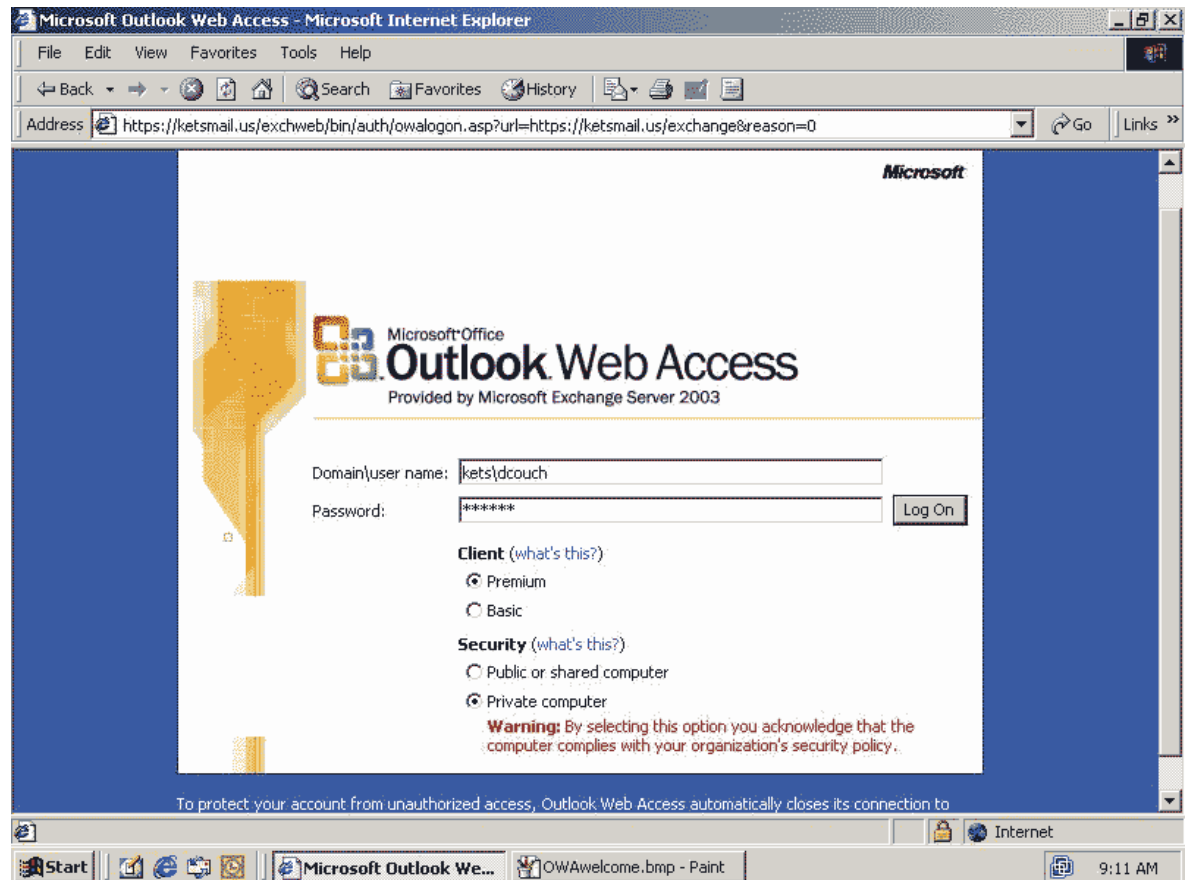
The radio buttons allow the end user to choose the type of user interface and the security behavior of the system as follows:

- **Premium** – most sophisticated user interface, with most of the features of the Outlook 2003 desktop client, such as Spell Check, drag and drop, etc. The client computer must have Internet Explorer 5.01 or newer.

- **Basic** – a simpler user interface; this version tends to be more responsive over slow network links and supports a wider variety of browsers. You will not have the enhanced functionality available with the Premium option.

- **Public or shared computer** – this version will automatically end the session after a short amount of inactivity (15 minutes), which is better in shared-computer situations. This is the default setting of the product for security reasons. With this setting, you will be prompted to enter your logon credentials each time the session times out.

- **Private computer** – this version automatically ends the session after inactivity, but with a longer delay (24 hours), and should only be used on non-shared computers. If this is the desired setting, you must select this option each time you logon onto OWA.

NOTE: Personal folders and the ability to view another person's calendar are not available with OWA.

6.1.2.3   Support

KETS supports IE 5.2 for Macintosh and IE 5.5 or newer for Windows as OWA clients; these browser versions will be able to use the Premium version of OWA. Other browsers may be able to use OWA, in either Premium or Basic version, but are not supported by KETS. A few advanced OWA features require IE 6 SP1.

6.1.3   Mobile Devices

6.1.3.1   Support

Mobile device support is enabled in the KETS Exchange 2003 environment so that any device using the Exchange ActiveSync protocol (when configured properly) can access the Exchange 2003 servers. ActiveSync is the inherent Exchange feature for synchronizing handheld devices. Windows Pocket PC handhelds (regardless of vendor) and the Treo 650/700 handhelds are examples of devices that support ActiveSync.

In addition to devices that use ActiveSync, any device that uses a client software redirector to interact with Exchange 2003 may be used. KDE will not configure the KETS Exchange 2003 environment to enable mobile device connectivity to Exchange servers other than via ActiveSync.

Note that all support of mobile device e-mail functionality is the district's responsibility; KDE will only assist with Exchange 2003 server configuration issues.

6.1.3.2   ActiveSync Mobile Device Configuration

When configuring ActiveSync devices, set the Servername to KETSMAIL.US, Domain to the user's domain (such as kets), Username to the user's Network logon (such as dcouch), and Password to the user's Active Directory password. You must disable certificate checking on the mobile device.

If you wish to have traffic between the ActiveSync device and the Exchange 2003 server encrypted in order to protect the user's password and mail content, you must enable SSL in the ActiveSync device; this setting is independent of the certificate checking setting mentioned above.

7 Limits, Standards and Compatibility

7.1 Mailbox Size Limits

Mailbox size limits (measured in megabytes) are based on OU membership of the user as follows:

Mailbox size limit by OU membership

Size limit > OU	Warning	Prohibit Send	Prohibit Send & Receive
Leadership	200	250	300
Staff	45	50	60
Students	5	10	15

7.2 Message Size/Recipients Limits

7.2.1 Enterprise Message Size Limit

The enterprise message size limit is 10 MB, which is the Exchange 2003 default. This means that a single message, including any attachments, will only pass through the KETS Exchange 2003 environment (even within a district) if it is 10 MB or less in size. Messages larger than 10 MB will not be sent and the sender will receive a non-delivery report (NDR).

7.2.2 Routing Group Connector Size Limit

Each routing group connector is configured with a 5 MB limit. This means that a single message sized between 5 MB and 10 MB (including any attachments) which is destined outside the originating district will not be sent to its destination during regular business hours. Instead, it will be held by the Exchange 2003 server and sent between 6 PM and 6 AM local time. Messages destined within the district are not affected by this Routing Group Connector limit. If a message is destined to some addresses inside the district and other outside the district, it will be delivered immediately to the in-district addresses and will be queued for out-of-district addresses.

7.2.3 Enterprise Recipient Count Limit

The enterprise recipient count limit is 5000, which is the Exchange 2003 default. This means that a single message originating within the KETS Exchange 2003 environment that is addressed to more than 5000 mail destinations (including each individual member of any distribution groups) will not be sent. An end user attempting to send such a message will receive an error message. In those cases in which an end user has a legitimate need to send to more than 5000 recipients, you can adjust the limit for that user using ADUC; see section 5.1.3.7, "Exchange General – Delivery Options."

7.3   E-mail Addresses

7.3.1   Composition

KETS Exchange 2003 environment SMTP e-mail addresses are generated as follows:

District **Leadership**/**Staff** OUs: *first.last*@*districtname*.kyschools.us
District **Student** OUs: *first.last*@stu.*districtname*.kyschools.us
KDE **Leadership/Staff** OUs: *first.last*@education.ky.gov

If the combination of first name and last name does not create a unique prefix within the district, a number will be appended to the last name (for instance, fred.jones1@somedistrict.kyschools.us). If First Name and Last Name are not populated, the prefix will be the alias (mailnickName); districts may use this approach with resource accounts (such as WEBMASTER).

Legacy e-mail addresses of staff, both KETS standard (*jdoe*@*district*.k12.ky.us) and non-standard (frank.smith@somedistrict.org), including secondary proxy addresses, will continue to work until December 31, 2006.

Legacy KETS standard addresses for students (*jstudent*@stu.*district*.k12.ky.us) will work until December 31, 2006; legacy non-standard addresses for students (student@somedistrict.org) will *not* function in the KETS Exchange 2003 environment.

NOTE: In addition to the addresses described above, each user has an SMTP e-mail address ending in **ketsds.net**. These addresses are automatically created by the system to support Outlook Web Access; do not attempt to modify, delete or use these addresses. The ketsds.net SMTP addresses are also used to support mobile devices and is the address that should be used in their configuration.

7.3.2   Format

The case of the first name and last name will be preserved in the e-mail address; for instance, if you enter a user's name as JOE jones, the e-mail address prefix displayed within the system will be JOE.jones. As mentioned earlier, please use mixed case (Joe Jones, not JOE JONES or joe jones) for personal users. However, Exchange 2003 is *not* case-sensitive for e-mail delivery; a message sent to joe.JONES will still be delivered to Joe.Jones.

Most of the characters found on a standard keyboard can be part of an e-mail address. The following characters *cannot* be part of the prefix and if used in the First name or Last name will be stripped out when the e-mail address is generated:

- Any whitespace (space, tab, etc)
- @ - at sign
- (- left parenthesis
-) – right parenthesis
- [- left bracket
-] – right bracket
- \ - backslash
- : - colon

- " – double quote
- ; - semi colon
- , - comma
- < - less-than sign
- > - greater-than sign

7.4 Exchange Server Names

7.4.1 Districts with One Exchange 2003 Server

The naming pattern for districts with a single Exchange 2003 server is

ED*districtnumber*X1

where *districtnumber* is the 3-digit district number assigned by KDE.

7.4.2 Districts with Multiple Exchange 2003 Servers

Certain districts with large numbers of e-mail users have multiple Exchange 2003 servers. The naming pattern is

Staff Mailboxes:	ED*districtnumber*X1
Student Mailboxes:	ED*districtnumber*X2
Outlook Web Access:	ED*districtnumber*FEX1

where *districtnumber* is the 3-digit district number assigned by KDE. *Note: The Outlook Web Access machine name is* not *used when trying to access e-mail using a browser.*

7.5 Service Accounts

Most of the server software in the KETS Exchange 2003 environment execute under LocalSystem accounts, though in a few cases other accounts are used. All service accounts will be managed by OET and should not be used or modified by districts; you should place administrators' accounts into appropriate AD security groups to give them any access they need.

7.6 SMTP Relay Support

SMTP Relaying means configuring a mail system to accept messages on port 25 which are destined for another server. This feature is usually used by an application (such as a batch system or monitoring system) which needs to originate e-mail messages but does not have all the mail functionality to determine the proper final destination server for those messages. By default, Exchange 2003 systems in the KETS Exchange 2003 environment will *not* be configured for SMTP Relaying and you cannot change this configuration yourself. If you need this feature configured, please contact your KETS Engineer, who will submit a Direct Engineering Request.

Please note that ordinary use of Exchange 2003 by client software such as Outlook, Outlook Web Access, etc. does NOT require SMTP Relaying.

8 Address Lists

The ability of end users to see particular e-mail objects (users, distribution groups, mail-enabled security groups, contacts, and public folders) in their client software depends on the OU membership of the object viewed, the OU membership of the end user, and the client software used. Section 3.2.6, "Organization Units", describes the OUs into which e-mail objects can be placed and the effects on visibility; this section will describe the other factors and provide other information about the global address lists (GALs) and address lists.

8.1   Background

8.1.1   Overview of Visibility

The following chart illustrates the visibility situation for most end users. For more details and exceptions, see the following sections.

Visible destinations by type of viewing end user and client software

Viewing End User > Client software	Staff	Students
MAPI (Outlook 2000, Outlook 2003, etc.) – no cache mode	Statewide staff personal users (including KDE) Own-district student personal users Own-district staff resource users	Own-district student personal users Own-district student resource users
MAPI (Outlook 2003) cache mode – online	Own-district staff personal users Own-district staff resource users Own-district student personal users	Own-district student personal users
MAPI (Outlook 2003) cache mode – offline	Depends on the chosen Offline Address Book	Depends on the chosen Offline Address Book
Outlook Web Access	Own-district staff personal users Own-district staff resource users	Own-district student personal users
IMAP (Entourage, etc.)	All items in AD	All items in AD

8.1.2   Address List Hierarchy in Outlook

The layout of the address lists as viewed from Outlook clients is hierarchical; each district's **Staff** address list is listed under "All Address Lists", with other address lists for the district indented the **Staff** list. Note that the layout (as well as the membership) is different using other clients.

The example below shows what a Caldwell staff end user will see when using Outlook; this end user can see all address lists for Caldwell, including Caldwell students, but can only see the **Staff** address list for any other district.

Example of Address Lists using Outlook in the KETS Exchange 2003 environment
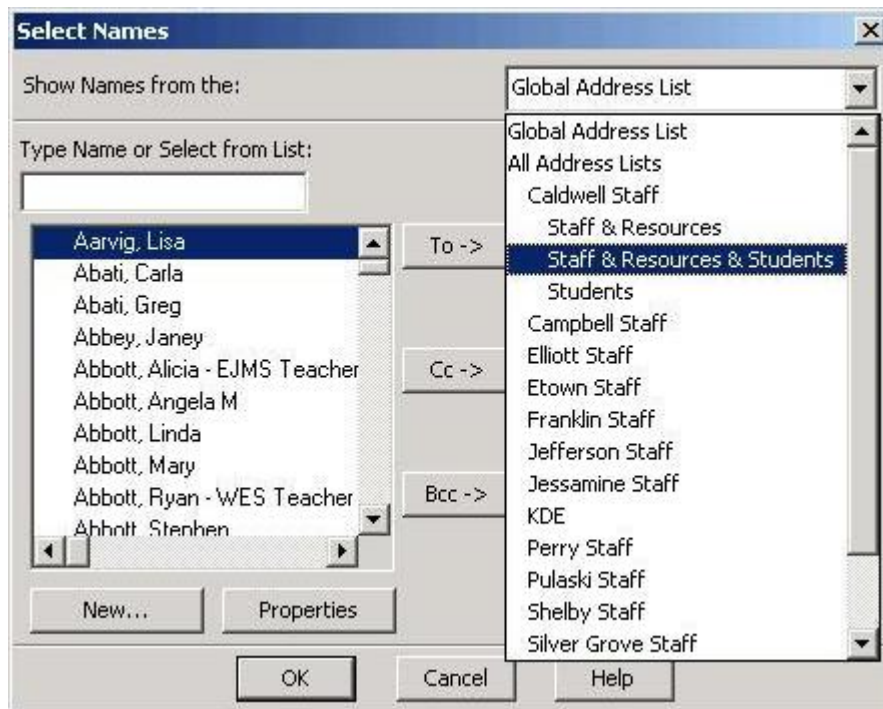
8.1.3   Outlook Offline Address Books

If you are using Outlook 2003 in offline cache mode, you will have to choose a single address list to be downloaded to your computer. When you open the Address Book in Outlook 2003 in offline mode, Outlook will display the same hierarchy of address lists (including your global address list) that you see in online mode, but if you attempt to chose an address list that was not previously chosen as the Offline Address Book you will receive an error message.

8.1.4   Details of Address Lists/Global Address Lists

This section contains an advanced, detailed explanation of the membership and visibility of the various address lists and global address lists.

8.1.4.1   Hierarchy of Address Lists

The KETS Exchange 2003 environment uses a hierarchy of address lists to organize e-mail destinations by district and by groups within each district. This hierarchy is described below. Note that a given e-mail destination can appear in more than one address list. Address lists only appear in MAPI clients such as Outlook.

- *District* **Staff** – one for each district. This list is at the head of each district hierarchy to support control of address list visibility.

    - **Staff & Resources –** one for each district, displayed indented below the *District* **Staff** list

    - **Staff & Resources & Students** – one for each district, displayed indented below the *District* **Staff** list.

    - **Students** – one for each district, displayed indented below the *District* **Staff** list.

- **KDE**– only one**.**

- **Staff & Resources** – only one; despite the name, this list contains KDE items as described below.

8.1.4.2   Membership in Address Lists

This section explains what e-mail destination objects (users, contacts, groups, public folders) appear in each of the address lists described above. The address lists appear across the top of the table, and the OUs appear in the left-hand column. Each address list only contains objects from its own district. Objects in the _**Groups** OU or any of its sub-OUs do not appear in any address list.

District Address List membership related to OU of e-mail destination object

Address List > OU	*District* Staff	Staff & Resources	Staff & Resources & Students	Students
Leadership	YES	YES	YES	NO
Leadership - _Exchange Resources	YES	YES	YES	NO
Leadership – Custom subOUs	YES	YES	YES	NO
Staff	YES	YES	YES	NO
Staff - _Exchange Resources	NO	YES	YES	NO
Staff – Custom SubOUs	YES	YES	YES	NO
Students	NO	NO	YES	YES
Students - _Exchange Resources	NO	NO	NO	NO
Students – Custom SubOUs	NO	NO	YES	YES

KDE Address List membership related to OU of e-mail destination object

Address List > OU	KDE	Staff & Resources
Leadership	YES	YES
Leadership - _Exchange Resources	NO	YES
Leadership – Custom subOUs	YES	YES
Staff	YES	YES
Staff - _Exchange Resources	NO	YES
Staff – Custom SubOUs	YES	YES

8.1.4.3   Membership in Global Address Lists

The KETS Exchange 2003 environment uses a series of global address lists so that different end users can focus on the appropriate set of e-mail destinations. The lists are described below; these list names are only visible when choosing a default address list in a MAPI client such as Outlook 2003..

a. *District* **Staff** – one for each district, contains
- User objects from all **Leadership** OUs statewide (including KDE)
- All KDE-required Distribution Groups (from the _**Exchange Resources** OU within **Leadership)** statewide
- User objects from all sub-OUs of **Leadership** statewide (including KDE) EXCEPT _**Exchange Resources** and _**Groups**
- All objects from the district's _**Exchange Resources** OU within **Leadership**
- User objects from all **Staff** OUs statewide (including KDE)
- User objects from all sub-OUs of **Staff** statewide (including KDE) EXCEPT _**Exchange Resources** and _**Groups**
- All objects from the district's _**Exchange Resources** OU within **Staff**
- User objects from the district's **Students** OU
- User objects from all sub-OUs of the district's **Students** OU EXCEPT _**Exchange Resources** and _**Groups**

b. *District* **Students** – one for each district, contains
- User objects from the district's **Staff** OU
- User objects from all sub-OUs of the district's **Staff** OU EXCEPT _**Exchange Resources** and _**Groups**
- User objects from the district's **Leadership** OU
- User objects from all sub-OUs of the district's **Leadership** OU EXCEPT _**Exchange Resources** and _**Groups**
- User objects from the district's **Students** OU
- User objects from all sub-OUs of the district's **Students** OU EXCEPT _**Groups**
- All objects from the _**Exchange Resources** OU within the district's **Students** OU

c. **KDE** – one for KDE, contains
- User objects from all **Leadership** OUs statewide (including KDE)
- All KDE-required Distribution Groups (from the _**Exchange Resources** OU within **Leadership)** statewide
- User objects from all sub-OUs of **Leadership** statewide (including KDE) EXCEPT _**Exchange Resources** and _**Groups**
- User objects from all **Staff** OUs statewide (including KDE)
- User objects from all sub-OUs of **Staff** statewide (including KDE) EXCEPT _**Exchange Resources** and _**Groups**
- All objects from the _**Exchange Resources** OUs within KDE's **Leadership** and **Staff** OUs

8.1.4.4   Address List/Global Address List Visibility

The address lists and global address lists that a given person can see depend on the e-mail client used and the OU membership of the AD user the person used to connect to the email system (the OU membership of the mailbox they are accessing is not significant). The various possibilities are illustrated below. Note that an end user will only be able to see a single GAL but may be able to see multiple address lists.

Login User, Client Software and GAL/AL Visibility

Login User > Client Software	Member of Staff or Leadership (or sub-OU)	Member of Students (or sub-OU)
MAPI (Outlook 2000, Outlook 2003, etc.) – no cache mode	GAL: *District* **Staff**	GAL: *District* **Students**
	AL: All *district* ALs Every district's **Staff** AL (including KDE)	AL: None (sees hierarchy but no members)
MAPI (Outlook 2003) cache mode – online	GAL: *District* **Staff**	GAL: *District* **Students**
	AL: All *district* ALs Every district's **Staff** AL (including KDE)	AL: None (sees hierarchy but no members)
MAPI (Outlook 2003) cache mode – offline	Any one of the following: *District* **Staff GAL** *District* ALs Other district **Staff** ALs Whichever is chosen to be in the Offline Address Book	*District* **Students** GAL
Outlook Web Access	GAL: *District* **Staff**	GAL: *District* **Students**
IMAP (Entourage, etc.)	All items in AD	All items in AD

8.1.5   Public Folder Visibility

The address list/global address list visibility of public folders is not controlled in the same way as the visibility of other objects. By default public folders do not appear in any address list or global address list; if you need a public folder to appear in these lists, please contact the KETS Help Desk.

NOTE: Do not modify the top level district public folder (i.e. "Adair") permissions. The owner for each district top level public folder should be the **Dist Public Folder Admins** security group. You can modify the membership of this group to give users access to administer your public folders.

8.2   Procedures

8.2.1   Hide an Object from Address Lists

Use the following procedure to hide a mail-enabled object from all address lists and GALs. This procedure can be used regardless of the OU membership of the object. *Note: This procedure will* not *hide the object from an IMAP e-mail client such as Entourage.*

      a.   Open ADUC and navigate to the OU containing the object.

      b.   Right-click on the object and click **Properties**.

      c.   Click on the **Exchange Advanced** tab.

      d.   Click the **Hide from Exchange address lists** checkbox.

      e.   Click **OK.**

9 SPAM Filtering and Virus Protection

9.1   SPAM Filtering

9.1.1   Background

This section describes SPAM filtering, intended to prevent end users from receiving unsolicited bulk e-mail. OET is providing multiple levels of SPAM filtering systems; you can request adjustments to some of these layers to better meet your district's needs.

9.1.1.1   Layers

a. SpamAssassin – OET uses Apache SpamAssassin to block SPAM e-mail messages before they enter the KETS Exchange 2003 environment. This system uses various techniques, including heuristic analysis and block-lists.

b. Enterprise Intelligent Message Filtering – OET uses Microsoft Intelligent Message Filtering (IMF) to block SPAM at the entry point to the KETS Exchange 2003 environment and as messages pass from district to district.

c. Outlook Intelligent Message Filtering – Outlook 2003 (in cache mode) has built-in capabilities to delete or file messages based on their composition. Configuration is at the discretion of each district.

9.2   Virus Protection

9.2.1   Background

9.2.1.1   Layers

OET provides the following layers of virus protection.

a. Enterprise GroupShield - OET uses McAfee GroupShield to block messages containing viruses, or attachments with dangerous file types, at the entry point to the KETS Exchange 2003 environment.

b. District GroupShield - OET uses McAfee Groupshield to block messages containing viruses, or attachments with dangerous file types, on each district's Exchange 2003 system.

c. OET uses McAfee VirusScan to protect the operating system and software installed on Exchange systems from viruses.